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Conditioning Polo Ponies

By Captain L. K. Truscott, Jr., Cavalry

ALL of us have known some good playing pony to "go bad," becoming increasingly difficult to play, more unwilling to check, stop and turn, until finally he develops into a "puller." As a general rule, when confronted with such a problem, the player's first thought is a change of bit, usually for one more severe in order to "find something that will stop him."

Lack of basic training, pushing too fast when green, poor riding, abuse, sickness and injury, undoubtedly account for many spoiled polo ponies, but most pullers are made by playing them when they are not in condition—when they are physically unfit for play.

We have all experienced the pony that plays well for half the period and then starts pulling, the pony that plays better the second period than the first, and the pony that plays well, but tires, and gives out when there is still a minute or two to go. All these are examples of ponies not in condition and physically unfit for play.

When I began playing polo, and later as polo manager in my regiment, responsible for the care and conditioning of polo ponies as well as for the instruction of younger players, I felt most keenly the need of something which would describe for me the practical conditioning of polo ponies, give me some idea of what to strive for, how to recognize condition when I saw it, and outline for me a systematic procedure to follow to achieve the object. I was never able to find in print exactly what I needed and wanted. Nearly all treatises and books examined either treated the subject too briefly to fulfill my need of specific details, or so generally as to make modification for my own particular needs very difficult. This article will attempt to set forth some of these details.

Every polo player and horseman recognizes the importance and value of resting polo ponies that have finished a strenuous season of play. Turning them out to pasture for three or four months with such additional hay and grain as is necessary, enables Nature, the greatest veterinarian of all, to do wonders in healing weary legs, joints sore from concussion, battered mouths, tender and filled tendons, broken and diseased feet, and last, but not least, in restoring disposition which so often grows ragged with staleness near the end of the season.

In this discussion we shall consider only the conditioning of polo ponies, and specifically, only the problem of bringing mature ponies of one or more seasons experience, that have been let down and rested during the winter in pasture or elsewhere, back into condition for a season of active play. The problem of putting young ponies into play for their first season is a part of their training, and their conditioning does not present any particular problems if their work has been continuous and thorough.

We shall discuss condition in general terms, consider the many factors which enter into conditioning polo ponies, and finally present an illustrative and suggestive schedule approximating one which has been used with success.

Condition

When is a Horse in Condition? A horse is in condition when he is physically fit to perform *all* the work required of him in a satisfactory manner, and without detriment or injury to his health and well being. Thus, the draft horse is expected to pull heavy loads at slow gaits for long periods of time. He is in condition when he can perform the maximum amount of work through long hours without injury to neck, shoulders, state of health, or his willingness. The hunter is expected to gallop long distances at a good pace, often in heavy going, and to negotiate obstacles both natural and artificial. He is expected to do this not once, but two and perhaps three times a week throughout the hunting season of several months. The hunter, therefore, is in condition when he can perform the work required in a days hunt, and come out again two or three days later as good as ever, and continue so during the season. The polo pony is the equine gymnast. As Colonel Goldschmidt says in his excellent book *Bridle Wise:* "The highest result to which we can attain in horsebreaking is the finished polo pony. The task demanded of him in activity, prompt obedience, and sustained endeavor places him in a class by himself in the horse world."

The polo pony is in condition when he is fit to perform his task, that is to play one, two or more periods of polo, not once, but two, perhaps three times a week throughout the playing season.

There are, therefore, two aspects to consider in conditioning the mature polo pony; first, making him fit to play at the beginning of the season; and second, maintaining him in condition to give a level performance throughout the campaign of several months.

The problem differs in some respects from that of conditioning a horse for a single race. For example, the race horse must reach his peak on the day of the race and at no other time. The polo pony must approach his peak from the first, but ever maintain a

reserve in order to carry on successfully and give a level performance throughout the long season.

In conditioning polo ponies we are primarily concerned with:

(1) *Muscular power; strength.* The pony must be strong, developed muscularly to the highest possible degree, in order to stand the terrific strain of one or more periods of polo two or three times a week throughout the playing season.

(2) *Wind.* Staying power means wind. No matter how strong a horse may be, if he is short in the wind, that is, if he cannot consume all the air required by extreme physical exertion, he can never last the fifteen or more minutes of play during the course of the game.

(3) *Legs and Feet.* Colonel E. D. Miller, in *Modern Polo,* says: "Half the sprains and lameness which occur at the beginning of a season arise from ligaments, tendons, and bones put to unaccustomed work."

Every horseman knows that more horses of all kinds have been rendered useless by disease and injuries to feet than from any other cause.

(4) *Agility. Suppleness.* In addition to muscular power, wind, and soundness of legs and feet, the polo pony must have agility—he must be active and supple to attain the activity and render the instant obedience demanded in polo.

How We Can Recognize Condition

"*Indications of Condition.* The ultimate test of condition is the ability of the animal to pass a test without undue fatigue. There are, however, certain indications of the condition of an animal which may be readily recognized. An animal in good condition presents the general aspect of good health. It has alert eyes and ears; a fine, glossy coat; soft skin; supple and good muscular development; well let down flanks; a good covering of flesh; a watery sweat which does not lather; a lack of undue thirst after hard work; a quick return to normal breathing after severe exercise; a good appetite; and a free, springy gait. The tendons and joints should be smooth and clean, and the legs should neither puff nor swell after hard work." *(Animal Management,* Cavalry School Publication.)

In judgment of condition we are continually guided by the indications of condition as described in the extract quoted. The final test, however, the thing which determines whether or not the polo pony is in condition, is his performance on the polo field. The indications we judge throughout the period of conditioning by close observation, not only of the pony's appearance, but of the manner in which he responds to diet and exercise.

Conditioning

The aim in conditioning mature polo ponies preliminary to commencement of the season's play is not only to have the pony physically fit for play when the season begins, but fit to continue playing in good form throughout the strenuous months following. He must, therefore, be "big" to begin with. If he is too fine at the start of the season he will become drawn and tired long before the season ends. The "bigger" the condition at the start of the season, the better, so long as the "bigness" is well developed and hardened muscular tissue, and not soft flabby flesh or fat.

There is one, and only one, way to condition polo ponies, or any other horse, for that matter, and that is by the judicious combination of sufficient good, wholesome food with the proper amount of exercise. Fat and flabby flesh cannot be changed instantly into hard tough muscle, and neither can flesh and muscle be built upon the overly thin and emaciated frame over night. The process in either case cannot be hurried, but must continue systematically over an extended period of time.

Relation Between Feeding and Exercise

Several authorities voice the opinion that most polo ponies are overfed and under exercised, and that more failures among polo ponies are caused by overfeeding than is generally recognized. Such may be the case, but as a result of my own observations, it appears that in most cases, particularly among army teams, the reverse is true, and that ponies are overworked and underfed. That is, that they are given more fast work, at any rate, than their physical condition or the food they assimilate warrants, although the amount of work might well be insufficient for the same horse in better flesh and in good condition.

It is by the judicious combination of work and feed that we make the horse physically fit. In order to develop muscle, harden ligaments, tendons and bones, much exercise is necessary, and the more work he gets the better, providing that the amount and kind is graduated, starting with little and gradually increasing within the limits of the horse's capacity, so that he remains sound and in good health. If the horse gets sufficient work he can safely be given all the food he will eat. Keep good bright hay in front of them at all times except while at work and during the ten or twelve hours immediately preceding the strenuous physical exertion of a game. Feed an ample amount of oats, bran, chop, and grass to keep them "on the mend" and feeling fit all the time. It is poor practice to reduce the amount of feed given the polo pony simply in order to save work for the man, if there is any possibility of giving him the necessary amount of work.

It is true that many horses are disagreeable, and often difficult, to play because they are too "high," and if we continue to play ponies in such condition we risk spoiling or injuring them. The answer lies, not in reducing the amount of feed, other than temporarily, but in increasing the amount of work the pony receives between games. Feed and work go hand in hand; when performing full work the horse should receive full feed. When not performing full work, or none at all, as a result of sickness, injury, or for any other reasons, his feed, or at least the concentrates (oats, bran, corn, etc.) which create the energy that finds its expression in exuberance of spirits,—"highness,"—should be reduced correspondingly.

As Colonel Miller says in *Modern Polo:*

"We have therefore, three good reasons for giving our ponies lots of work, namely, to make them fit, to keep them sound, and to render them comfortable to ride."

Time Required

The time required to condition polo ponies for a season's play depends on many factors, such as his condition to begin with, his age, his size, temperament, and so on. The mature pony from six to twelve years old which has run in pasture during the winter months, and which has been fed a maintenance ration of oats and hay, will be in fair condition to begin with, and he can usually be placed in fit condition in from four to six weeks. The extremely run-down, overly thin horse, usually a poor keeper at best, presents more difficulties because it is necessary to build him up in flesh and he cannot be given the amount of work necessary to develop muscle and harden ligaments, tendons and bones, without affecting the addition of flesh. Such a horse requires from eight to sixteen weeks. The problem of conditioning is further complicated by the presence of infirm and unsound ponies. The time required for their conditioning depends upon the amount of work they can stand; the more they must be favored, the longer the time required to condition them.

The average time lies somewhere in between the two extremes. I like to allow eight or ten weeks for an average string of say 20 ponies. Bringing them in from pasture the 1st of February you may count on having them ready to play the 1st of April. The first four games are used as a sort of progressive test of condition, playing the pony rather than the game and graduating the amount of play according to requirements of the ponies. In this way they approach their top form by the middle of April. As a rule there is some tournament in sight for which it is desired to have the ponies near their peak. Therefore, a reserve should be maintained as it is much easier to fit a horse while he is still on the upgrade than it is to bring him back when he is on the down grade, overworked, and stale.

Exercise

The natural gaits of the horse are the walk, trot and gallop, and the various muscles are in each gait variously exercised. In order to develop every part of the horse's frame, therefore, all three gaits should be employed.

Walking. Walking is the principal exercise in conditioning. It develops muscles, eliminates fat from muscular tissue and hardens legs, tendons, ligaments and bones, thus enabling them to stand the severe strains of play without injury. Walking is excellent for developing and toughening that source of so many polo ills, the foot.

"The principal gait should be walking and then more walking." The time spent in walking should start with periods of one-half to one hour in the first week of work, and be gradually increased until the polo pony is receiving at least two, and better, three or four hours a day. Where possible the route followed during exercise should always be over rolling ground as the work up and down slopes is a valuable aid in developing muscular strength and wind.

The Trot. The trot increases the muscular development, eliminates fat, supples muscles and tendons, and develops wind. Too much fast work runs flesh off horses without changing the soft flesh into muscle. The trot should be used in conditioning to increase physical exertion gradually, developing muscular power and wind, preparatory to faster work. I consider trotting an important exercise and of value for the reasons outlined, and also because a brief period at the trot relieves the monotony of long periods of walking for both the horse and the groom.

Starting during the third or fourth week, the walking periods of one and one-half to two hours should be broken by a period of ten minutes at the trot. This can be gradually increased until near the end of the conditioning period the walking is broken by two such periods, and they can be lengthened to fifteen minutes as required.

The Gallop. Cantering and galloping increase muscular strength and development, remove fat, increase the stride, and by the violent physical exertion of the lungs, clear the lungs and develop wind. Wind means staying power and the physical exertion required of the lungs in galloping is the only way of developing that power.

Beginning in the fourth or fifth week of the conditioning period, the polo pony should get a short gallop daily, and near the end of the conditioning period may well get two periods daily. To begin with the periods should be short, not over five minutes, and the periods gradually lengthened, as conditioning progresses, to ten or fifteen minutes by the end of the training period.

Unless done for the specific purpose of reducing flesh, the polo pony in conditioning should not be galloped to the point where he lathers or sweats excessively. More walking and trotting is a better method of reducing fat, as soft flabby flesh is thereby changed into muscle and not run off in sweat. In the beginning it is well to gallop only until the horse breaks a good sweat, thereafter increasing the lengths of periods gradually until he can gallop ten or fifteen minutes without difficulty.

In addition to developing muscular power, strength, wind, legs, and feet, we must also develop the pony's agility: supple him so that his muscular activity is increased, and he is made willing to render instant and prompt obedience on the field. This is best done during the periods of galloping, though all the work is not by any means done at the gallop. The pony should be put progressively through all his school movements at the various paces. He is thereby suppled as is his mouth, jaw and poll and he is disciplined and made willing to render the obedience required. Schooling hurts no polo pony. The great majority suffer from lack of schooling rather than from an excess.

Ponies should not be allowed to slouch or "dog" through their exercise. The walk should be as brisk as possible without jogging; the trot should be quick and require as much exertion and impulsion as possible consistent with quiet going, and the gallop should be either collected, or extended sufficiently to keep the horse's attention on the business at hand.

(To be concluded in the next issue.)

New Developments in Warfare

General C. P. Summerall

METHODS of welding men and material into combat units change constantly. The fundamental element—man—has remained practically constant throughout the history of warfare; but weapons have varied in accordance with the progress of science. The tendency of the present age is strongly towards an ever increasing application of scientific means. Automotive, aeronautical and chemical developments during recent years have introduced elements that will materially affect the composition of future armies, particularly our own.

The Mechanized Force

A new element foreseen as a development in the armies of the future is the mechanized force.

One of the surprising phenomena of the World War was the great gain in the relative power of the defense, due largely to the increased fire power of automatic weapons combined with obstacles and the absence of exposed flanks. The attack first sought to overcome this disadvantage by huge expenditures of artillery ammunition designed to cover completely the entire area held by the defense and crush the defender on his positions. The long preliminary bombardments, however, eliminated any surprise effects, the defender withdrew his principal forces to a second position out of range of the attacker's artillery, and the attack succeeded in gaining only a few kilometers, frequently at the expense of ghastly losses. As a result there developed on the western front a prolonged period of stalemate, during which neither side was capable of gaining a decisive victory. Then the idea of advancing the attack by the aid of armored vehicles took form in the tank, which gained its first great success at the Battle of Cambrai.

The World War tank was a vehicle of such low speed that it could only be employed as an immediate auxiliary to the infantry. The success which was attained with this weapon in its primitive stage of development has led to the expectation that with the improvements certain to take place as the result of more deliberate design and automotive progress, the tank can be made an instrument of sufficient power to break up a stabilized situation, restore mobility to the battlefield, and return to the offensive its superiority over the defense as a mode of combat action. Tanks with a cross-country speed of from 20 to 30 miles are now foreseen and will undoubtedly be developed in the near future. This increase of speed will have two important results—it will endow the tank with comparative invulnerability to direct hits by artillery; and it will require its separation in part from immediate attachment to infantry units in order that advantage may be taken of its superior mobility. From the latter action, it will follow that from being an immediate auxiliary of the infantry, the tank will become a weapon exercising offensive power in its own right.

All of the foregoing leads to the conception of a mechanized force of which tanks form the backbone. Since the tanks have little holding power, such a force must include a highly mobile infantry to hold the ground gained by the tanks. As this infantry must be given great defensive power, its armament will consist for the most part of automatic weapons. In view of the distance from the principal forces at which the mechanized force will operate, it will require the support of artillery immediately at hand and must therefore include in its composition an artillery element having a mobility equal to that of the tanks. It must be self-contained in other respects and receive the necessary quota of chemical warfare weapons, antiaircraft, engineers, signal corps, and transport, all adapted to movement conforming to the tanks and especially equipped for the accomplishment of this particular mission. Its action would be supported by the aviation of the field army to which the mechanized force would normally be attached. The requirement of mobility leads to the adoption of the tank chassis for a large part of the gun mounts and cross-country transport of all elements of the force.

Since the tank forms the basic element of the mechanized force and its chassis will be extensively used by other elements of the force, the progress which has been in development of a suitable tank becomes of especial importance in this connection. It is therefore most unfortunate that no tank satisfactory to the using arm of the service has been produced. Twelve years after the World War we are still dependent upon the war-time model.

In the summer of 1928, an experimental mechanized force was assembled at Fort George G. Meade for the test of matériel and the development of tactics and organization applicable to such a force. This improvised force was equipped with such matériel as was then available. The speed of the tanks was so low, and the matériel was so obsolete, that little knowledge of value was gained. The latest tanks developed by the Ordnance Department were tested and found to be unsatisfactory. A board was appointed to study the results of the experiment and submitted recommendations for the organization and equipment of a mechanized force. The execution of the recommendations depended upon securing funds for the manufacture of modern equipment, assuming that the ordnance tank could be satisfactorily modified. It was found, however, that this tank could not be so improved. There

exist good grounds for belief that the latest tank developed by the inventor, Mr. Christie, may prove satisfactory. In that case funds will be requested for its procurement. The tank board has also a promising project for reengining the war-time tanks and thus obtaining a speed which will permit their provisional use in a mechanized force. Based on this progress, a mechanized force, as recommended by a board which has recently completed a restudy of the organization, was assembled at Fort Eustis on October 1, 1930, equipped with all old and experimental matériel available.

The tendency toward what is generally known as the mechanization of the military forces is now the subject of intensive investigation in all the important armies of the world. It has developed extremes of opinion and much diversity of view as to details of equipment, organization, and tactics. The extreme progressives foresee the army of the future composed solely of air forces of much greater power than those heretofore known and ground forces endowed with high mobility by automotive means, capable of rapid movement both on the road and across country under armored protection, and equipped with high-powered automatic weapons including chemical warfare appliances. Since the vast amount of matériel, supplies, and repair units required for the equipment and upkeep of such a force would preclude the organization of the mass armies of the past wars along these lines, the proponents of this view maintain that the mass army will disappear entirely from the battlefield of the future and that such an army would be helpless to resist the attack of a mechanized force. A more moderate view concedes the value of a mechanized force as a powerful mobile auxiliary, but maintains that mobility and shock action have never been the sole qualities sought in a military force and that a force endowed with high mobility must necessarily make a great sacrifice of fire power in favor of rapidity of movement. As in the past we did not have armies composed exclusively of cavalry, so for the future we do not foresee a completely mechanized army.

We are perhaps in a transitional period, the precise outcome of which no one can foresee. What is certain is that no nation is at present prepared to abandon the mass army as the principal reliance of its national security. It is none the less important that close attention be given to the development of a mechanized force, its organization, tactics and logistics, and to the influence of mechanization upon the composition and operative methods of the other elements of our forces.

Air Corps

The most striking development of the World War was in the air. A new arm came into being through this medium, took its own part in combat, and supplemented and assisted the activities of the other arms.

The Air Corps as a separate arm in the Army of the United States was created by the National Defense Act of June 4, 1920. Developments in the new arm were so rapid as to require individual legislation, and it was increased and reorganized under the act of July 2, 1926. Three annual increments of the 5-year program provided by the act have been completed.

The five-year program was instituted in 1927, and the Budget has been called upon to provide not only the specific elements enumerated in the law, but for extensive costs of operation, research and development, technical construction, housing, grades and ratings, and various other demands not originally contemplated in the scope of the program. All this has been done by curtailment of other activities. The rest of the Army has, moreover, been required to reduce its troop strength to supply the commissioned and enlisted personnel of the annual increments of the Air Corps.

The mission of the Air Corps is to provide a highly mobile combat element, which in tactical and strategical combination with other arms conducts such air operations as are required for carrying out the Army mission. Its essential characteristics are mobility, fire power, and ability to observe and attack surface or air objectives at distant points within enemy territory or off the coast. Its weapons are gas, aerial bombs, and machine guns.

While the Air Corps forms a component part of the Army, it possesses certain characteristics which enable it to conduct separate operations in furtherance of the general army mission. In combat with enemy air forces, in long-distance reconnaissance and destruction, it must frequently conduct its operations apart from other arms. It has probably exercised a greater influence in modifying the postwar organization and operative methods of other branches than any other single factor.

The fact should not be lost from view that a great change has taken place in our air situation during the past four years. In 1926 our greatest weakness in the air was probably to be found in the fact that our aircraft industry was almost nonexistent, that but little production could be expected for more than a year after the outbreak of a war, and that there was no commercial aviation to develop trained flyers from whom an adequate reserve could be drawn. The extraordinary development of commercial aviation during the past four years has brought us to the point where we are now the leading producer of aircraft in the world and where we can actually enter upon the quantity production of military airplanes long before we could reach a similar stage in the manufacture of ammunition. It has made available a reserve of flyers, who, though not trained in the fighting of military airplanes, could be made efficient military pilots in a much shorter period than the totally inexperienced personnel upon which we would have had to rely in 1926.

The completion of the five-year program will bring our Air Corps to a much higher state of relative readiness than any other branch of the service.

Chemical Warfare

Another agency of warfare developed by the World War includes all those means of combat action which are embraced under the term, chemical warfare.

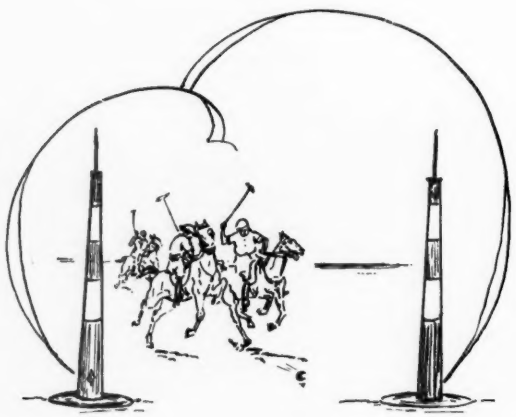
These include toxic and nontoxic gases, smoke, and incendiaries.

It has been the aim of our Government to seek for the international outlawry of the use of toxic gases as a means of combat action. It initiated the prohibition of the use of noxious gases in war which was incorporated in Article V of the treaty concluded by the Conference on the Limitation of Armaments but which has not come into force, due to incomplete ratification by the participating nations. In conformity with the general governmental policy, it has been the policy of the War Department to refrain from training troops in the offensive use of chemical weapons.

Nevertheless, the fact remains that no international agreement restricting the use of chemicals is now in force. It would, moreover, be an extremely hazardous policy to rely on an international agreement as a complete protection against chemical attack. In a death struggle for existence, there would always be the danger that a nation in dire straits would resort to chemical weapons if it saw in that agency the means of escaping defeat and achieving victory.

In the present situation, the most that we can do is to pursue laboratory investigations into chemical developments and train our troops in protective measures against gas attack. In the training of all branches, the conditions of gas warfare must be assumed in order that the troops may be partially prepared to meet the probable conditions of future battle.

The three agencies above discussed—fighting machines for ground troops, aircraft, and chemical means—are the newer forms of military force. They have brought about important modifications in the organization and tactics of the older branches. Within the older branches, a partial substitution of machines for man power is taking place, and motor transport is replacing animal drawn vehicles wherever practicable. The development of new means and the gradual change of older ones should not distort our perspective of the army as a whole. Infantry remains the basic arm. Coast artillery is essential for the defense of our important harbors against naval attack, and for the service of antiaircraft guns. Field artillery continues to be indispensable to the success of the Infantry. Our national situation has repeatedly proven the value of the Cavalry, and our geographic location emphasizes the necessity of Cavalry for the future. New developments should receive constant attention; but they should not be permitted to jeopardize the efficiency of arms that have been subjected to the battle test.



Cavalry Packs and Marches

By Colonel Albert E. Phillips, Cavalry

The following article is the second installment of Colonel Phillips' discussion of this highly important subject. In the January issue of the JOURNAL *he discussed the importance of training in pack transportation, the causes of injuries, conformation and gaits of pack horses and gave a detailed description of the Phillips pack saddle, its fitting and adjustment.—Editor.*

THE necessity for brevity prohibits a general discussion of pack loads in this article. The subject will be discussed later in the JOURNAL. It is a subject that has received but scant thought by the service as a whole, yet its importance cannot be overestimated. Successful pack saddlery at cavalry gaits depends as much on the weight, bulk and "positioning" of loads as upon all other factors.

All the standard cavalry loads but one are "hanger" positioned loads. The ration pack is the one rope hitched load. Hangers often break in the field and loads then must be rope hitched or tied with wire until repairs can be made. Cavalry is often separated from its wagons and supplies then are carried by the troopers' mounts and by such packs as are available. This was the experience of the Pershing Expedition in Mexico.

The Rope Hitched Loads

Rope hitched loads have always been considered a problem for most soldiers principally because the method of the old diamond hitch was difficult to learn and quite easy to forget. And the cavalry pack load must be secured so as to ride at cavalry gaits—not pack train gaits.

The Phillips Pack Saddle was designed to facilitate the use of ropes as well as to carry hangers. Several new hitches were recently developed for use with this saddle. Two of these hitches are considered superior to the regulation diamond hitch. One of the hitches is in use by the 1st Pack Train and this hitch is of particular value for pack trains. It requires, however, specially prepared ropes. The other hitch is of particular value for Cavalry and other units. This latter hitch is considered superior to the regulation diamond; it is simple, easy to learn and not so easy to forget. The hitch is designated "The Phillips Cargo Hitch."

The equipment for rope hitched loads with this hitch consists of:

A canvas manta for each side and top load, whenever a top load is carried.

A "lair" rope for each of these loads (⅜" rope 30 feet long).

A sling rope for each cargo saddle (⅜" rope 30 feet long).

A lash rope for each cargo saddle. The lash rope for the Phillips Cargo Hitch is 60 feet long of ½" rope, with a small loop in one end. A lash cinch is not required and should never be used with the Phillips Saddle.

The canvas manta is used for wrapping each load that requires protection. Even box loads should be wrapped to prevent wear of the ropes.

The "lair" ropes are used for securing the mantas to the loads. The sling rope holds the loads in place upon the saddle preparatory to lashing. The lash rope secures the load to the saddle.

One of the difficulties of hitch loads was the confusing method of describing and illustrating such loads. The endeavor will be made here to simplify the illustrations and procedure.

To Manta a Load. Let us assume that we have a compact load—a box or tightly sacked supplies. A manta is spread evenly on the ground and the load placed diagonally across its center. A packer picks up the corner of the manta nearest to him, brings it snugly over the load and places one or both knees on top, reaches over and grasps the opposite corner which he folds in and brings the double portion over the top of the load so that the edge will come nearly across. He places his left knee on top to hold the manta in position. The manta is then crimped in at one end and the flap brought over the load. The packer then places his right knee on the flap to hold it in position and the operation is repeated for the other end; the end being folded under so that the folded edge will come to position near the middle and on top. His left knee is placed upon the flap to hold it in position; a lair rope is taken and a loop formed by passing the end thru the eye, the loop then being placed lengthwise around the middle of the load and drawn taut so that the eye comes near the top of one end. A half-hitch is then taken around the load near the end; one in the middle and one around the other end, after which the remainder of the rope is carried around the load lengthwise and tied on top by two half-hitches.

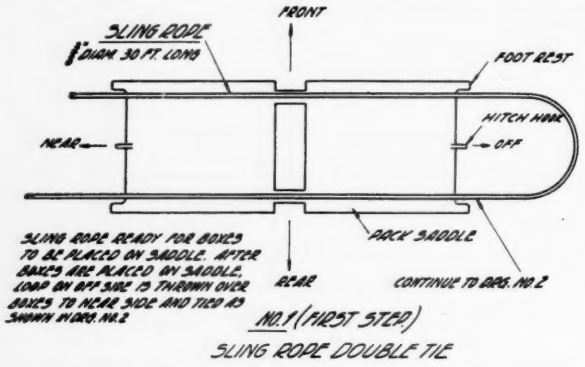
Other Loads. Should the bundle be made up of several small packages the loop is first placed around one end, then around the bundle lengthwise and a half hitch formed around the other end and center; a bight or loop of the rope is then passed about the standing rope just beyond the eye and drawn taut, the remaining rope passed around the bundle lengthwise and made fast on top. This method prevents the packages from buckling as they will do if the first loop is placed lengthwise about the bundle and drawn taut. Packers work singly in lairing mantas on such cargo.

Cargo which is in sacks and not tightly packed should first have the ends squared. This is done by use of small pieces of light rope. There are two methods depending upon whether the goods are single or double sacked.

(1) The First Method (used for single sacked goods such as oats which are loosely sacked). The sack is

stood up on end. A loop is formed in the end of a rope by tying it in a slip knot through which the left hand is passed. The corner of the sack, with a small quantity of oats in it, is then picked up in the left hand, the loop dropped around it and drawn taut. A half hitch is then formed in the rope about the left hand. The other corner is then picked up in the left hand, the half hitch dropped over it and the rope drawn sufficiently taut to take about one-half of the slack out of the sack, after which the rope is given another turn about the corner and secured to itself with two half hitches. The operation is then repeated for the other end, all slack being taken out of the sack in drawing the corners together.

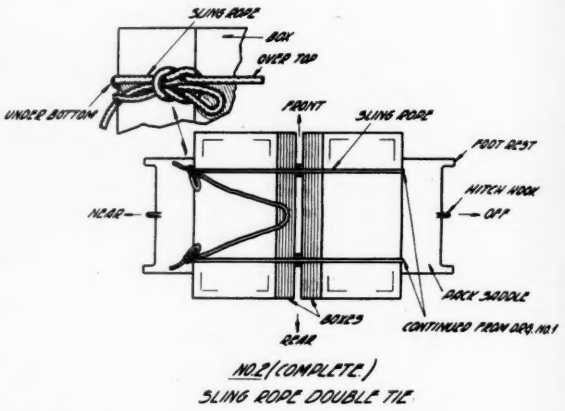
(2) The Second Method (used for goods which are double sacked). One corner of the outer sack is lifted and a hole pierced through it. The rope, with a bowline knot tied in one end, is passed through the hole, after which a hole is punched through the other corner, the rope passed through it, brought back through the bowline and secured so that about half of the slack is taken out of the sack. The operation is then repeated for the other end, all slack being taken out of the sack before securing the rope.



Sketch No. 1. To Sling the Load, First Step

To Sling The Load. The load is slung and double tied in preference to a single tie. Two packers work together. The near packer takes a sling rope and doubles it near the center passing the loop or bight over the saddle to the off side, reaving the ends hang down on the near side, the shorter end in front just touching the ground. He then adjusts the loop by lengthening or shortening the rear end so as to have sufficient loop to pass over the off load and slightly over the near load. He then spreads the ropes apart to about 3 inches from each edge of the saddle. (See Sketch No. 1. To Sling Load).

The off packer then places his load well up on the saddle resting it on the sling rope, a flat side of the load being in contact with the saddle, and holds the load with his left hand. The near packer then picks up his bundle and places it upon the near side of the saddle so as to lap about 4 inches on top of the bundle on the off side and holds with his right hand. The off packer then passes the loop over the top of the load. The near packer receives it and passing the forward rope over and thru the loop, from top down, takes out the slack and ties a square knot. He then similarly ties another square knot with the rear rope. (See sketch No. 2, for the square knot).



Sketch No. 2. To Sling the Load, Completed Sling

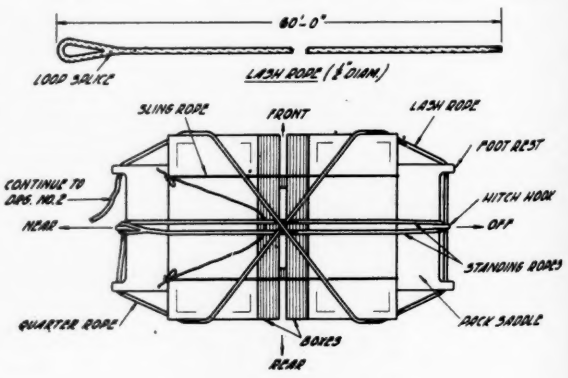
The load is then settled in place as follows: The off packer holds his bundle in position while the near packer lifts upward and outward on the bottom of his bundle so that the top will come down even with the off side bundle, after which he lets go and each packer grasps the top of his bundle and settles the load by pulling down upon it. The off side packer coils the loose rope ends and tucks them under the sling rope on top of the load. The load is now ready to lash. The method of settling here described is for evenly balanced side loads. A heavier load on a side overlaps a lighter load for the required transversal balance.

All loads should be positioned so as to have a slight excess of weight forward.

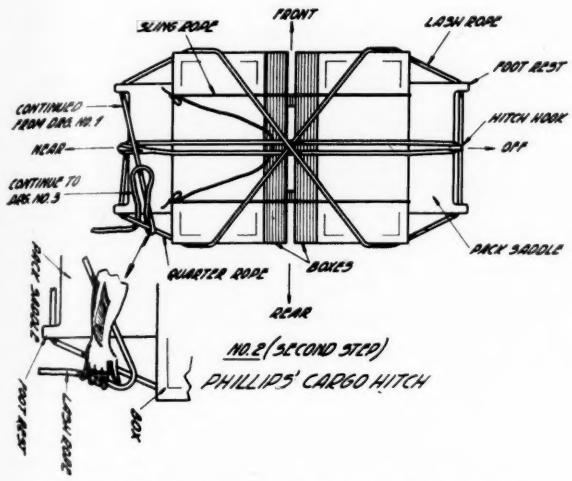
The Phillips Cargo Hitch

This is a simple but very effective hitch developed for use with the Phillips Saddle. The lash rope consists of a ½ inch Manila rope 60 feet long with a loop in one end. The loads are slung and double tied.

To Form The Hitch—1st Step—(See Drawing No. 3.) With the lash on the near side of the saddle, the loop is placed on the hook and part of the lash is passed



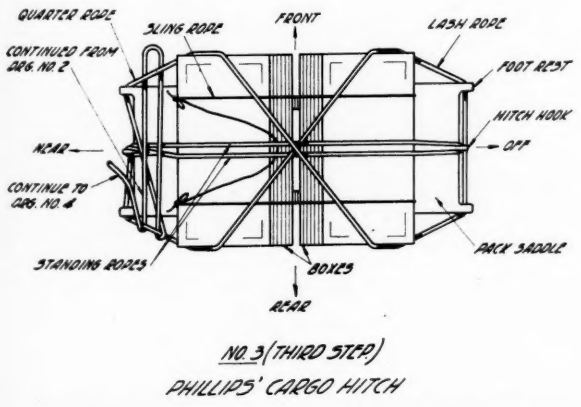
Sketch No. 3. Phillips Cargo Hitch, Completed



Sketch No. 4. Phillips Cargo Hitch, First Step

over the load to the packer on the off side, who places it under the hook from rear to front. The near packer then places the lash under the hook on his side, from the front, thence under the rear foot-rest and over the rear corner of the load diagonally toward the off front corner. The off packer, taking sufficient lash, places the diagonal over the off front corner of the load, under the front foot-rest, thence under the rear foot-rest and diagonally over the rear corner of the load toward the near front corner. *All slack is now taken up* as follows: The off packer places his left foot against the bottom bar of the saddle and pulls the slack from the rear standing rope, the near packer taking the slack by pulling the front standing rope. The near packer then pulls the slack from the rear quarter rope, the off packer taking it from the front and then from the rear corners. The near packer takes this slack over the front corner of the load and places the lash under the front foot-rest and holds with his left hand.

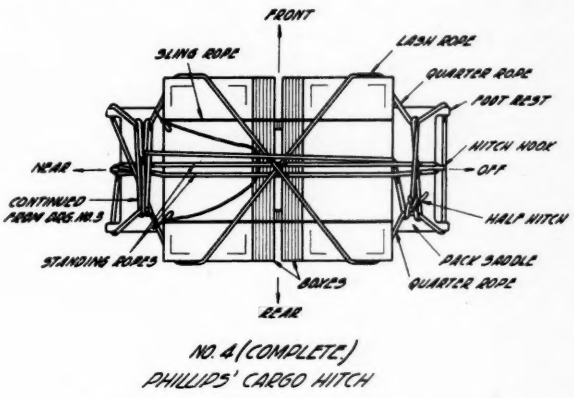
2nd Step (See Sketch No. 4.) The near packer, with his right hand, back of hand outward, loops the lash around the rear quarter rope from outside to inside, coming out under the lash and leaving the end of the lash rope hanging outside the foot-rest.



Sketch No. 5. Phillips Cargo Hitch, Second Step

3rd Step (See Sketch No. 5.) The loop is grasped in the left hand and moved forward outside the standing ropes and then around the front quarter rope from the inside.

4th Step (See Sketch No. 6.) The end of the lash is placed thru the formed loop from the inside and drawn tight, the loop remaining in front of the standing ropes. Holding this slack with his left hand, the near packer steps to the rear of the saddle, places his right foot against the rear foot-rest and pulls back. This takes up the slack. He then passes the loose end over to the off side in front of the standing ropes. The off packer takes all slack and then binds it by pulling the lash under the standing ropes towards the rear. He then grasps the lash with his left hand and forms a loop around the rear quarter rope from inside to outside, which he holds. With his right hand he pulls the end of the lash from inside the standing ropes and passes it around the front quarter rope from outside to inside, coming out under the lash, outside the standing ropes and thence thru the loop held by the left hand,



Sketch No. 6. Phillips Cargo Hitch, Completed

whence all slack is taken up by drawing the quarter ropes inward. The lash is tied with a half hitch or other convenient type of hitch.

This hitch securely binds the load. As loads settle due to stretching of ropes or the settling of the cargo it will generally be necessary only to untie the lash and tighten the quarter ropes to again secure the load. It is a hitch that may be placed and tied by one man if necessary.

Cavalry Marches

In the pamphlet on "The Phillips Pack Saddle," page 6, the writer states; "The condition of both riding and pack animals will be conserved by regulating gaits on the pack animals. An over extension of gaits may quickly be detected by observing the pack animals."

In Col. Van Voorhis' article in the October, 1930, CAVALRY JOURNAL he states: "the pack animal is the deciding factor in the conduct of Cavalry marches."

Since marching is the most difficult of cavalry functions and constitutes the greater part of the work of Cavalry in the field, should we not pay the greatest

attention to this subject? As we now have both riding and pack elements it is necessary here to consider both elements.

Let us base our discussion on some eleven years experience in command of cavalry machine gun units, plus twenty additional years as an officer of Cavalry, which experience includes the Mexican Punitive Expedition of 1916 in which the writer's machine gun troop of the 10th Cavalry and the squadron to which it was attached marched over 1100 miles and men and horses lived off the country for six long weeks. Also included in these years of service was the supervision of the machine gun squadrons of the Cavalry Division while Division Machine Gun Officer, and as observer during long marches of three division maneuvers. The writer was most fortunate while in command of a machine gun troop to drill and train it independently and in most cases to march it as a separate unit thus being able to work out the most successful methods. All that follows regarding the marching of cavalry pack units is based on this experience.

The first requisite is the selection of the most suitable horses for the packs and next the selection of horses for the men who are to drive (not lead) the pack animals so as to have mated teams. The most suitable horses for packs does not necessarily imply the best horses in the troop. The drilling and training of these teams has an important bearing on marching.

Being a pack unit we naturally gave some thought to the pack train rule of getting over ground and not halting between camps except when and where necessary. In the application of this rule we found the following method of marching a cavalry machine gun unit—troop or squadron—to give the best results:

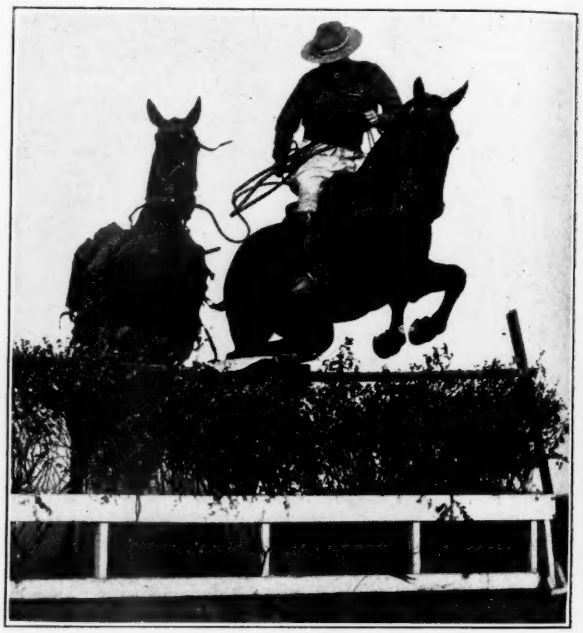
Careful supervision of saddling by the officers and non-commissioned officers before the march and especially at halts. To carefully saddle the pack animals before saddling the riding horses but to leave the loads on the ground until the last moment. A saddle carrying a dead load should receive close supervision. A signal or command to "pack" or "attention" with sufficient time to "load" before commanding: "Prepare to mount." This is not always done in mixed commands of Cavalry and pack units—and all Cavalry has pack units now.

The first hour of the march at the walk with the usual halt to allow the men to attend to their personal needs and to readjust equipment. As a rule most saddlery needs considerable adjustment at this halt. Pack animals frequently "blow" against the cinchas when first cinched and the weight of load settles the saddles so that readjustment of cinchas is always necessary at the first halt if the animals have been properly cinched before starting the march, i. e., minimum cinch pressure. Usually most of the pack saddles have to be moved rearward away from the shoulder blades.

From the first halt onward the command is moved over the ground with a slow trot predominating, a minimum of walking and no leading unless the conditions of the march, animals, roads, weather, etc., make some leading desirable. Halts are made principally for water at which times the other needs of the command are attended to—there is, however, a minimum of halts. Every suitable opportunity is taken to water the animals.

There isn't anything radical about the method. It is merely an adaptation of the principles of a well-trained pack train marching across country. It gets the command over ground and a march of twenty miles or more may be completed from one to two hours earlier than the *usual* march, with men and animals in better condition.

Why a slow trot and why should it predominate?



Captain J. L. Stokes, 123rd Cavalry Taking a Horse with Full Combat Load Over a 4 Foot, 8 Inch Jump

Slow trot here is meant a trot of approximately seven and one-half miles per hour but never in excess of the regulation eight mile trot. Turn the pack horse with load loose as in herding and it will usually take the canter or gallop when the riders take a fast trot—a trot in excess of eight miles per hour. A few pack horses, if heavily loaded, will gallop occasionally at the eight mile trot.

Walking, while the easiest and a necessary gait, consumes much time, and time under weight of load is an important factor. For the rider, walking has a tendency to cause soldiers to lounge in the saddle. The slow trot makes every soldier sit up in his saddle. The gait may be continued for hours in a command trained to it without excessively tiring either horses or men.

Fast trotting causes all saddles, riding as well as pack, to swing sidewise with the withers as a pivot. For the pack saddle and its dead load there is also a maximum of vertical pounding. The rider minimizes this pounding by posting, but the pack horse gets the full effect of it in addition to the sidewise swing-

ing of the pack saddle. In the slow trot of just under eight miles per hour there is practically no sidewise swinging of the saddle with a minimum of pounding.

The fast trot cannot be continued for any considerable period and when the horses come to the walk they are tired and take a "slow" walk. The average result in time and distance covered between the "fast trot and slow walk" and the fast walk and slow trot is approximately the same with the exception that the slow trot may be continued for longer periods with the animals in better condition.

Short fast walks alternating with short fast trots will, of course, get the command over ground but the combination cannot be used with pack units without causing many pack animals to gallop.

The trot should be regulated on the pack animals. The pack animals will take the walk and the gallop of the riders. In regulating the trot we should avoid any over-extension of the gait with a tendency to cause some of the pack animals to gallop. Watch the pack animals!

There may be some objection at first to slow trotting for longer periods but when the men get used to it and get in camp hours earlier they would not go back to marching hours longer at the walk. Commands may be trained to the fast walk. The fast walk and the slow trot are better than the slow walk and the fast trot.

There will be those who will question this method of marching but the success of the method on the many occasions where it was used proves its worth; that it cannot be applied universally is recognized. No method of marching can be used at all times. The method is an adaptation of the old adage: "Make haste slowly" and an avoidance of Kipling's "It's the hours in the saddle and the 'ammer, 'ammer on the 'ard 'ighway that does the damage."

A few examples might be of interest. The machine gun squadrons of the 1st Cavalry Division found it desirable to march as separate units in order to take the gaits most suitable to the pack animals. The squadrons, tho, were usually required to march in rear of the cavalry brigades. On the return march from the maneuvers of 1923 the writer obtained authority for the 2d M. G. Squadron under Major Richart to move out just ahead of the brigade. This squadron, using the principles outlined but "herding" the pack animals, arrived in camps from one to two hours before the head of the brigade.

In coming out of Mexico in 1917 the fast trotting of the cavalry brigades caused practically all the pack animals to gallop whenever the brigades trotted. In many instances the pack animals had to jump the mesquite bushes while the drivers' horses remained on the trails. Results: several pack animals dropped in their tracks. And this was after all the long hard marches of the campaign.

During the 1927 maneuvers of the 1st Cavalry Division the writer was attached to the 1st M. G. Squadron as an observer. On the return march from the maneuver area to camp near Marfa, the M. G. Squadron commander was forced to take a "slower" trot as practically all his pack animals and some of his riding horses were galloping in the attempt to keep up with the fast trotting of the brigade. When the brigade took the walk the machine gun squadron would soon overtake it and would have passed it had the brigade permitted it to do so.

The writer's machine gun troop of the 10th Cavalry was trained in the method of marching outlined in this paper and used it for years on marches with that regiment.

"The pack animal is the deciding factor in the conduct of cavalry marches."

Pack saddles and loads should be constantly watched on marches by platoon leaders when occasion admits and by a non-commissioned officer of the unit,—squad, platoon, etc., at all times and, when a pack requires attention, the animal should be pulled out of the column immediately if necessary. In most cases of a canted saddle it may be adjusted by the driver of the pack animal without halting. A pack saddle that is canted for more than a few minutes is likely to cause an injury.

Halts and leading. Some cavalry commanders allow only five minutes at the hourly halts. Ten minutes is barely sufficient time for the men to attend to their personal needs and to the adjustment of both riding and pack equipment. When pack loads cannot be removed the loosening of cinchas will greatly relieve the animals.

When the command leads, cinchas should remain loose or tightened just sufficient to hold the pack saddles.

With well fitting saddlery and careful adjustment at the first halt there will be less necessity for frequent halting in a command trained to march long distances at the slow trot.

The trot should be regulated on that of the pack animals. "The pack animal is the deciding factor in the conduct of cavalry marches."

Note: The author has called attention to the omission of a paragraph from the text of the first installment, published in the January JOURNAL. The paragraph, which should appear at the bottom of the first column on page 11, is as follows:

"In removing hair pull small amounts of hair from the back of the pad and push in the contact surface. Thongs must be tied tight after adjustment. Place the contact side of the thong on a small stick or rock when making the tie or have an assistant push the thong in with the handle of the hammer. For minor adjustments where considerable accuracy is desired the hair may be pushed thru one of the tuft holes on the belly side by first removing the tuft. The short stuffing tool in the new tool roll is used for this work. The handle of the hammer is often handy when pushing large amounts of hair thru a handhole."

Editor.

Notes on Marksmanship

Lieutenant W. E. Pheris, Jr., 45th Infantry (P. S.)

WE who spend an appreciable portion of our life-in-service in an effort to obtain better marksmen, often fail to realize just how new the subject really is, and how short a time our standards of shooting have been accepted by the experimental boards. The annual worry of qualifying our men within the marksmanship season has dimmed our vision of its place in the scheme of training. We therefore become lost in the minutiae of its technique and in the end place it upon our calendar as the culmination of our season's effort. So the purpose of these notes is to view marksmanship in a different focus and to consider whether or not it has faults in its present practice, and how improvement could be made.

The practical application of our marksmanship training, the range practice, which is the ultimate test of the value of the instruction received in preliminary work, has been acurately described as *known distance firing*. It is that; and even more precisely it is *point to point precision firing*. It is the same kind of marksmanship our ancestors applied in their bow-and-arrow jousts, in which several competitors would stake their skill against one another at splitting reeds at a known distance for the king's bounty. Today our range practice amounts to the same thing, only our weapons and their technique have changed from the days of the bow. And by this method of competitive individual qualification in arms we credit ourselves with having learned to master our weapon, and with having mastered a method of teaching others to use our weapon. Incidentally, of course, we have overcome a number of problems of psychology, leadership, management, discipline, and so on, ad infinitum. So we emerge from the marksmanship season with a feeling of work-well-done, of having reached our training objective and of pride in the possession of a 100 per cent unit qualification record; even though we have little consideration for having just witnessed an event in no wit different from those common occurrences witnessed by Guinevere, Merlin, or any member of King Arthur's court.

From consideration of this view of our rifle training we infer that possibly more time should be allowed for something else, since we are not fundamentally trying to train specialists of only individual excellence. Individual training is basic, we should really progress beyond that training. Combat firing, wherein coordinated teamwork and the results of group effort can be measured, is accounted for on our program, but it occupies a small space of time and is not given any great credence as a training objective. The reason for this is clear. Being yet young in the matter of training units for peace-time combat exercises, we have not developed a measure for such training commensurate with the means at hand for extensive exercises of that sort. We play with squad firing problems, attack the problems of larger units only in theory, and trust that in time of need we may be able to whip our fighting units into coordinated combat teams by inference and induction derived from the basic individual training we have so long undergone. We concentrate upon marksmanship today as a training objective, whereas when an emergency arises it will only be a means to the end—success in battle.

When we coolly meditate in retrospect over the marksmanship seasons we have seen, a great many wrongs, errors and mistakes come to mind. Cases where recruits had to fire a course with insufficient instruction because they enlisted too near the close of the season; where the best ammunition available was too poor to give accurate results; where oversized men, undersized men, struggled to accommodate themselves to the methods of instruction; where old soldiers in their declining years, put up a brave fight to compete against young men in full possession of their physiques. These four cases merely start the list; and were the list extended far into the experience of other comrades in arms, there is little doubt but that it would bring forth much interesting material about marksmanship as it is practiced.

Primarily the subject is a delicate one to approach. For men have spent a lifetime of service in obtaining the excellence of training at which we now stand. The various schools of thought which tend to regulate our direction of progress, have been divested of ponderous shrouds of mysticism and have been clarified unto the comprehension of the simple being. We now have individual marksmanship in a concise comprehensive routine, without ceremony, without variation, without wasted effort. It is efficient, foolproof.

But efficient, foolproof matter ceases to be individual. It is true we get the most shooting out of the least expenditure of time and effort. That is efficiency. At the same time we require all manner of men to do things in exactly the same identical manner whether or no they are physically suited to the evolutions they annually go through. Long arms, short arms, tall men, small men, oddly proportioned men, all men must conform to the system of individual work prescribed. Deviation from the ROTC is illegal. The results obtained seem to justify the means, even though upon occasion a man must fire his piece in a non-regulation position even to simulate following the prescribed course of training. We are becoming dogmatic

about our training. And of course, close to dogmatism follows a habit of blinking at derelictions. Our individual marksmanship is becoming a ritual instead of training, and we annually take the role of true believers whether we like it or not.

This ritualistic development may be traced in part to competition. The competitive spirit has been carried to the ultimate limit in the matter of training. East, west, north, south, everywhere, each unit is competing against the rest of the Service to obtain the best record of the year. Companies report in, that they have qualified 100 per cent of their men. Regiments report, that they have qualified with an 85.6 per cent score per man; more than 90 per cent qualified in all training. Splendid statements appear on paper, and a successful season is celebrated in honor of the sterling record. But way out there beyond the horizon where the scores are being made, the regiment just starting its marksmanship training has decided to better the best record that has yet been made. Pressure is exerted to bend every effort toward qualifying every man in the organization. A 100 per cent score is the objective of the unit, and its members are not allowed to forget it once during the season. Not only must qualifying scores come in, but scores must be had that will bring the average up to a point where the unit as a whole will take its stand in and among the numerous groups of superior shots on record these days. And the objective, at the start, is to head that list of superior-shooting units. So the season, for that unit, becomes a mass qualification season. Individual training in marksmanship is relegated to the limbo of the past, and in its place comes a frantic effort to coerce inept, backward, or deficient shots into firing a score commensurate with the demands of regimental pride. The cool efficiency of thorough training is defeated by the exigency of competition.

The average scores contemplated by our guides and manuals have entirely gone by the board in the necessity for qualifying with a 100 per cent average. For reference note the scores reported in the INFANTRY JOURNALS; page 636 of December 1928, page 80 of January 1929, and on page 522 of November 1929.

The quite tangible consideration of the service affect marksmanship; the army recruiting policy, and the requirement that enlisted men fire the rifle or marksmanship course throughout their entire service. Notwithstanding the prevalent tendency to make high scores, it is not at all infrequently impossible to qualify the recruits given us by our high pressure recruiting system. Men of years join us, men with faulty physiques are admitted into the Service, and these men have to be dragged through the target season. To excuse them is to shift the proof, it is at least unethical, and if they should but do not fire they break the golden 100 per cent record. Should they subsequently transfer to an arm more suited to their ability, the unit which tried to make its target season with them is in no way relieved of its loss. The other classes of unsatisfactory enlistments, those under age, frauds, and the like, eventually discharged, are simply a permanent loss to the organization.

Again, in every outfit a few old soldiers can be found who are on the verge of physical decline. They are men who have long years of faithful service behind them, who have only a few more years left before a physical examination will find them unfit for service in the field, and who still have two or three enlistments to be done before retirement would come to them automatically. These "Old Timers" regularly turn out and make a brave effort to compete with the youngsters in their outfits. Frequently they do obtain exceptional scores; more often not. In the case of officers it is admitted that after fifteen years of service one need not qualify further with the rifle; it would seem the same type of provision for enlisted men would be equally justified.

So much for consideration of the conditions of firing and the personnel to fire. There remains the matter of the equipment in use in the Service. As these words go on the paper one can hear the distant rumble of the remarks of future readers, who will promptly think of the ammunition they have been required to use, and will express themselves softly or profusely on the subject in accordance with their most recent experiences with it. And while it may be a poor carpenter that blames his tools for a botched job, at the same time cases of poor ammunition are sufficiently frequent to warrant speaking of them.

Old lots of ammunition come into the hands of troops for use on the target range. Instances have occurred where a container was opened to discover the cartridges packed loose in the wooden box, with verdigris eating away the cases of more than half of the box. Other instances can be brought to light, but here would only lengthen an already long discussion. It would seem that a first grade ammunition would be required for precision target work, instead of an old stock, as is so many times given to the troops.

A second consideration is the fact that the service rifle is not eminently suited to the precision firing required of it. Ballistically it is quite sound. But its sight equipment, and personal fittings (stock, comb, grip, and so on) leave much to be desired. In using it men have to make adjustments of position or padding to accommodate themselves to the weapon. And the best shots we have developed have almost invariably rearranged their rifles for open or free competitions, though ever so slightly, but nevertheless to the extent that they actually fired something quite different from the issued pieces they were first given.

Argument is rife on every range, each target season, as to the positions now required of a man in firing. Certainly they are definite enough, but at the same time not enough leniency is allowed for men to accommodate themselves to their weapons. However the position one uses in firing is merely a condition of the competition for the pay bounty, and aside from the demonstration that a piece can be fired from positions other than the natural ones (prone or standing), it has

little bearing on combat firing. The conclusion is that the positions should be worked over only with a view to removing the stigma of dogmatism now attached to them.

Criticism is the easiest vice of mankind. Likewise it is an entertaining pastime, for it allows the critic on the floor to indulge in a contemplation of fact in retrospect, adding to it as many negative notions as time and his mental agility will permit. So, after criticising the merits of the existing order, it is fitting to bring out something in the nature of a solution to the errors positive or imagined, something designed to counteract the damnations of the established order of procedure. In this case the solution seems to be a change from considering individual marksmanship as the major work of the target season, so as to include combat firing as a necessary important part of that season. Let us therefore go over a scheme of incorporating this firing into the rated target season.

We start on the hypothesis that marksmanship training should tend towards success in battle as its objective. Its major activity should therefore consist of combat firing, applied in a manner such that team training and coordinated effort could be studied, taught, applied and rated as a result of the target season. Individual marksmanship would be an associated activity, but would dwindle to the position of a preparatory exercise occupying only a part of the target season. All effort would be bent toward qualifying the unit as a whole in a combat exercise. Our present principles of instruction give a ready solution for attaining a systematic solution for such training.

Schematically the target season would be comprised of three parts:

1. Individual Marksmanship, 100 per cent qualification required.
2. Specialist Marksmanship, qualification in special arms, to rating and pay of present sharpshooter.
3. Combat Marksmanship, combined coordinated unit firing, qualified units to be rated and receive pay for same.

In its concept this scheme does not deviate far from the present order of training, but instead places a different value on the phases of training and contemplates a rearranged system of awards for excellence in training. It would involve a number of changes in the order of marksmanship training, and as the length of an article of this kind prohibits an extensive training regulation type of explanation, it is hoped the following notes will bring out the thought behind the scheme.

The individual marksmanship instruction should consist of slow fire records at 200 and 300 yards, and rapid fire at 200 and 300 yards. It should present the man with all the hazards of position now offered in the range course, but should allow him a considerable leniency in adjusting himself to the fit of his piece and firing position. Telescopic sights should be barred. Targets and scoring should be as at present. Qualifying score should be placed at about 70 per cent record for the course. A unit firing this course should be required to qualify 100 per cent of the men with less than 16 years' and more than three weeks' service. Reenlisted men with no former rifle qualification should be classed as recruits of less than three weeks' service, and not rated in the company qualification course, nor allowed to fire the combat course. In drawing compensation men should be paid for only the second and third phases of the training, if they can qualify in them.

Specialist marksmanship should consist of that firing conducted to qualify members of the organization equipped with special arms. Pistol shots, auto-riflemen, grenadiers, should qualify during this period, and upon attaining qualification in their specialties should receive compensation in amount now granted sharpshooters. Riflemen should be allowed to complete 500 yards slow and rapid fire, 600 yards slow fire, and such other course as may be deemed necessary to qualify them further to receive a rating as a sharpshooter. Specialist units should also fire courses with additional position hazards to permit them to qualify for compensation in arms qualification.

Combat marksmanship should consume the major portion of the target season and should mark the culmination of the training season. For fire power units it should include an application of all the principles taught in the year's training cycle, but the results obtained should be especially rated upon the fire power results obtained by the unit upon firing a combat course. Satisfactory results should give the unit as a whole the rating of expert in its arm of the service, and entitle the men who took part in the combat exercise to compensation as experts for the ensuing year. Such combat courses should consist of fire power problems, with other tactical phases incorporated in them, with predetermined values of satisfaction required. The unit firing should not be familiar with the problem.

In computing the rating of a unit 100 per cent qualification in individual marksmanship should be required, and 60 per cent qualification in specialist marksmanship; a satisfactory high score on the combat course should be obtained before the unit could attain the expert rating. Individuals should receive compensation for qualification in specialist marksmanship, and an additional increment for participating in the firing exercises of a unit which achieves a rating of expert. Specialist units, such as transportation, clerical, and communication units, should be required to demonstrate their efficiency under simulated combat conditions to receive qualification and compensation as experts.

In conclusion let it be pointed out that these notes on marksmanship are presented with a view to airing once again a few of the evils current in our present system of marksmanship, and in the hope that the suggestions about new methods of conducting the same will be received with an open, constructively critical mind by those who endure the misfortunes of the difficulties of training, who have ideas on the reorganization of the whole, but who have to date, remained silent.

Southern Grasslands International Steeplechase

By Lieutenant R. E. Ireland, 6th Cavalry

A GROUP of nationally known sportsmen, who for several years have been seeking a location suitable for practically all out door sports, made their selection last year of a tract comprising about twenty-eight square miles between Nashville and Gallatin, Tennessee, for the site of the Southern Grasslands Hunt and Racing Foundation. This particular seeter is so bounded that game of all kinds will naturally be held within its limits. The broad beautiful Cumberland River flows for nearly twenty miles along the south; to the east is the village of Gallatin; the wide deep Drake Creek on the west and to the north the L. & N. railroad with an electric interurban and the Andrew Jackson Highway paralleling it. Here it is planned to hold steeplechase and point to point racing, fox hunts, polo and numerous other similar activities.

Of the many famous buildings, the most interesting is the old Southern mansion at Fairview, which will later become Bachelors' Hall. The tall white pillars in front, hugh rooms with high ceilings and enormous windows, old fashioned fireplaces, numerous slave quarters below the slope in rear and immense stabling facilities are a reflection of the days when Andrew Jackson and other southern gentlemen raced horses for the glory of ownership rather than for large purses.

A further word about the stables. There are two of immense size and several smaller ones. The one at Fairview is of stone, the one at Race Horse Tavern is wooden. At these two places there are accommodations for about 200 horses. Nothing but large, roomy, well ventilated box stalls are to be found in either. Each has its covered exercise track around the outside. The footing of both tracks is faultless, all corners are padded to prevent injury and they are respectively about 10 and 12 laps to the mile.

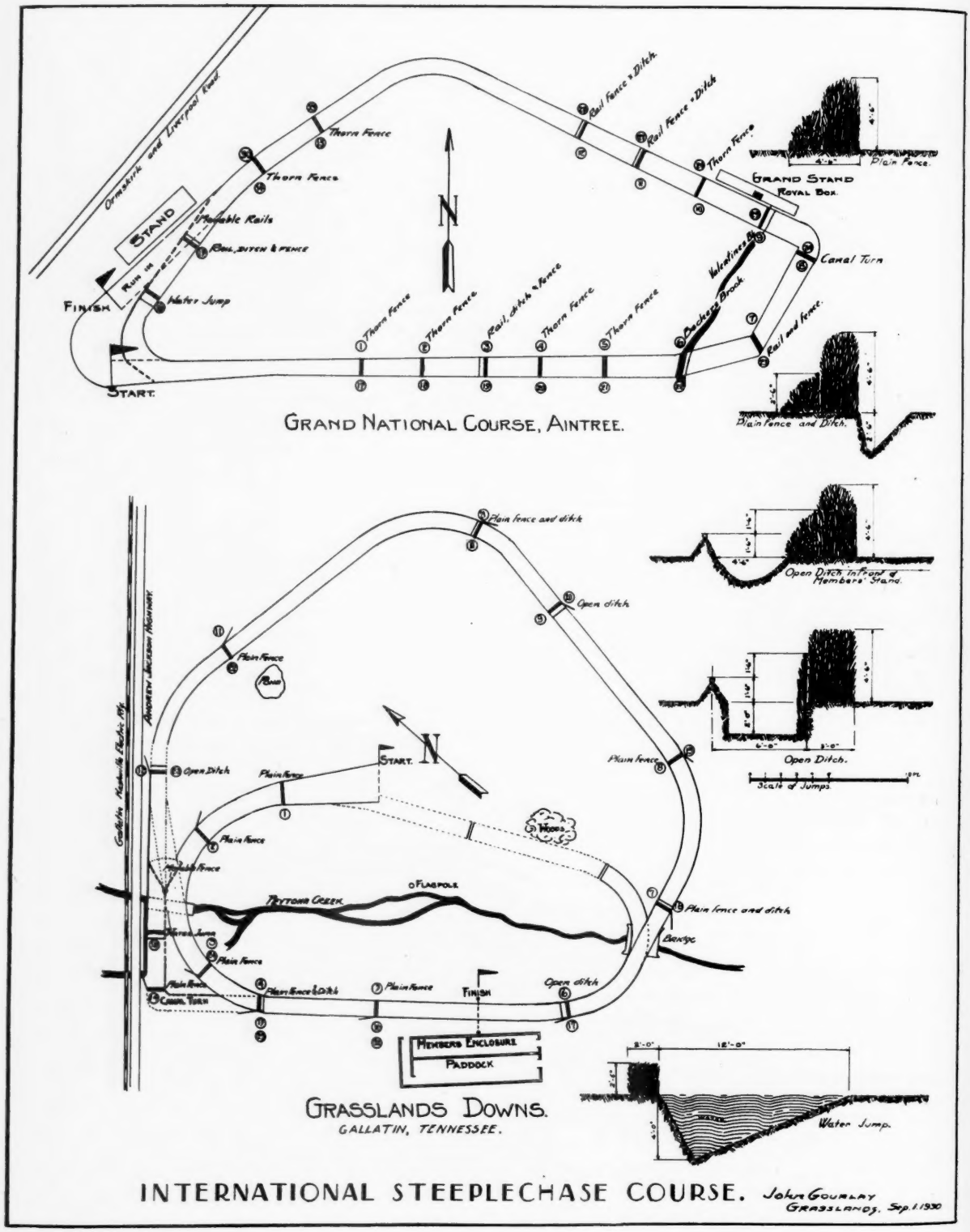
The first steeplechase held at Grasslands Downs took place on May 19th of this year. It was twice around a mile and a quarter course containing seven brush obstacles for the Duke of Beaufort's silver trophy. *Red Gold,* a six year old gelding, by *Ilex* out of *Grace Jackson,* and owned by Mr. Byron Hilliard was the winner. The purpose of the race was to prove to a large number of racing enthusiasts the possibility of developing an American course after the manner of the Aintree course in England.

The success of this test flight was proven in the race of December 6th which was run over the recently completed International course. This beyond question is the stiffest course in America. This gives it many advantages, chief of which is that any horse that can negotiate it at speed should have an exceptionally good chance in the Grand National. American owners and trainers who aspire to win the latter will do well to try their horses here in December as their prospects can be judged by their performance over this course. There is no inference that the course is impossible. It is not, but to finish and win is reserved for horses of speed, indomitable courage and marvelous jumping ability coupled with perfect condition and unquestioned staying powers.

The course is laid around the inside of a natural ampitheatre and all jumps are visible to the spectators along a half mile front on the south side. The start is in the center with two four and a half feet brush fences before reaching the main and outer track and then ever three more jumps to the judges' stand. From here it is twice around the course. The first time around includes the water jump and "Canal Turn," but on the second lap the course comes just inside these two. The distance is four and a half miles with twenty-six obstacles, whereas the Aintree course is four miles 876 yards with thirty obstacles. The rise of ground from jumps 7 and 18 to 10 and 21 being covered twice is more than an added compensation for the four additional fences in the latter course. It is impossible for a horse to drag through the jumps on the International as they have been pressed together by machinery and a man can walk on top of them.

The description in detail of the jumps is as follows:

Fence No.	*Kind*	*Height*	*Landing*
1	Plain fence	4′ 6″	ground level.
2	Plain fence	4′ 6″	drop of 4″ landing.
3 & 24	Plain fence	4′ 8″	level.
4, 15 & 25.	Fence and ditch	4′ 10″	drop of 4″ on landing.
5, 16 & 26	Plain fence	4′ 6″	level.
6 & 17	Open ditch	4′ 6″	drop of 3″ landing. (Paddock Ditch)
7 & 18	Fence and ditch	4′ 10″	rise of 2″landing.
8 & 19	Plain fence	4′ 10″	rise of 3″ landing.
9 & 20	Plain fence	5′ 0″	level.
10 & 21	Fence and ditch	4′ 8″	level.
11 & 22	Open ditch	4′ 10″	drop of 10″ landing (Hill-top Ditch)
12 & 23	Open ditch	4′ 10″	drop of 8″ landing (The Pond Ditch)
13	"The Water" Fence	2′ 6″	water 12′ wide level landing.
14	Plain fence	4′ 10″	rise of 2″ landing. (The Peytona Canal)


Ormskirk and Liverpool Road
Thorn Fence
Rail Fence & Ditch
Thorn Fence
Grand Stand
Royal Box.
Stand
Hurdle Rails
Rail, Ditch & Fence
Canal Turn
Valentines Brook
Finish
Water Jump
Rail and Fence
Start.
Plain Fence and Ditch.
Grand National Course, Aintree.
Plain fence and ditch
Open ditch
Open Ditch in Front of Members' Stand.
Andrew Jackson Highway
Plain Fence
Open Ditch
Start.
Open Ditch.
Scale of Jumps.
Woods
Flagpole
Tetton Creek
Bridge
Plain fence and ditch
Hurdle Fence
Canal Turn
Finish
Members Enclosure
Paddock
Water Jump.
Grasslands Downs.
Gallatin, Tennessee.
International Steeplechase Course.
John Gourlay
Grasslands, Sept. 1, 1930

The day of the race was raw and cold with frequent drizzling showers which threatened to turn to snow. It had rained steadily for two days but due to the nature of the ground and natural drainage the course was not boggy except in a few places on the back stretch. The top soil was slippery and created danger of grass matted with it balling in a horse's shoes and making his landing over a jump a precarious proposition. This proved true as all horses fell on the far side of their jumps with but one exception. Most horses were shod with rim steel and outside grabs. With this type shoe, the footing was firm enough to hold at the takeoff where the pressure came on the toe and most circular part of the shoe but it was a different story when they landed. It was not exceptional to see a horse slide from one to three yards on one or both front feet after he had cleared a jump. The ground dries rapidly and two hours of sunshine before the entries went to the post would have changed the whole aspect of the race. On a dry day, it seems no far drawn conclusion that at least eight or ten of the seventeen starters would have finished without difficulty.

It is impossible to give exact details of the entire race and the few given may be slightly in error. The usual delay in starting a race in the open without a barrier was missing; one trial start and they were off. The first horse down over-jumped himself at the third fence. The field strung out as they came on to the seventh fence without mishap but from here on the weeding out began in earnest and the number left in the running was rapidly decreased. The backstretch claimed the most of them. Contrary to expectation, neither the water jump nor the Canal Turn caused the horses that reached them any difficulty. At the end there were only three horses to finish; *Alligator* owned by Mrs. M. K. Stevenson, *Bally Yarn* owned by Mrs. W. Plunkett Stewart and *Maitland* owned by Mr. Austin H. Niblack, in the order named, and all had fallen at least once. Rumor has it that the winner fell three times but it is doubtful if he fell twice at the most. His last spill came at the 25th jump when he was leading *Waverly Star* by a length and a half. Charles Plum, Jr., his rider was thrown hard over his right shoulder. *Waverly Star* swung to the left to avoid the fallen horse and as he did so his rider made an error which cost him the race. Instead of letting his horse run on a wide curve to the edge of the course and then straightening him out for the last jump, he snapped the *Star* hard to the right and threw him off his feet. The shock was too great and the horse was not up for several minutes. He was too badly shaken to finish. Meanwhile Plumb had gotten *Alligator* back on his feet, brought him home over the last fence with nothing to spare and won what was beyond question, the most gruelling race of its kind ever held in this country.

It was a badly battered and mudspattered pair that came back to salute the judge but it could be told in a glance that if either was ever beaten it would be through no fault of theirs. The King of Spain's Gold Cup and its small replica were a fitting tribute to a strong hearted horse that refused to accept defeat and a courageous and coolheaded rider who gave his horse every possible advantage.

Mrs. Stevenson, owner of *Alligator,* when asked after the race if she planned to send him to England replied, "no, I don't believe I will ever race him again—you know he has always done every thing that has been asked of him and this, I think is enough." *Alligator* has won numerous high class races but until three weeks prior to this one had never run over brush fences.

Of those deserving honorable mention, one must include the three English horses *Kilbairn, St. Roy* and *Manambar* as well as *Silver Dawn II* from Kentucky. Bad luck seemed the ardent pursurer of the British entries. On December 4th, *Kilbairn* developed a bad cough and was sent to the post at the last minute but with doubt that he could stand the grind. Whether his spill at the 14th jump was caused by "choking down" is not known. *Manambar* and *St. Roy* were both cut down on the same jump in the back stretch by a horse which became unmanageable. This horse slammed *Manambar* against the wing and then swung diagonally across the jump and threw *St. Roy* in a pile as he himself went down. Both horses were in good shape and had found no difficulty at any part of the course. Their riders, Lts. Skey and Newell, appeared to be content to stay together and were apparently waiting to make their bid as they came out of the back stretch. Their only remark was, "It could have happened to any one as that is a part of racing, today it was us."

It is to be regretted that some American owners and trainers could not lose with as much graciousness and sportsmanship. Fortunately there were but few who were embittered to the point of expression but it took two British youngsters in their early twenties to show them how to accept the awards of Lady Luck in the racing game.

Many spectators were at a loss to account for so many horses falling after clearing their jumps and for so many riders being thrown. The most apparent reason for the first has already been given. As for the second, it was in some cases a physical impossibility to withstand the continual roll and rock of a horses shoulders caused by the constant slipping and sliding with only a knee grip for support. The extreme short stirrup used by practically all riders denied any other contact. Many, no doubt were loosened by the tremendous contraction of the horses' shoulder muscles in their frantic effort to maintain balance and to regain speed. Whether longer stirrups for firmer grip and saddle skirts flared farther forward to prevent leg displacement by shoulder action would have lessened the number of falls is merely a matter of conjecture.

All in all the first International, as viewed by over 10,000 and run under conditions as they were, was a most remarkable event. It gave every indication of having the possibility of some day being on a par with the English classic which is the incentive of its origination.

Hawaii Nei

Lieutenant G. A. Hadsell, Coast Artillery Corps

TAKING text from Rudyard Kipling, "For to admire an' for to see," it is the purpose of this paper to present a brief review, chiefly visual, of Hawaii Nei, Beautiful Hawaii. And since the military is most concerned with the island of Oahu, upon which are situated Honolulu and Schofield Barracks, it is Oahu which will principally occupy our attention.

It is our first duty to investigate the rainbow-tinted scenes presented to lure tourists to this "Paradise of the Pacific." The officer with orders to join wants to know whether or not the picture is overpainted. Though drawn by the romance of far countries beyond the sea, he views with grave suspicion references to eating delicious native *poi* from a calabash by moonlight on a palm-fringed shore, while dusky maidens sway in rythmic *hula* to the throb of gourd drums and the beat of surf at Waikiki.

If Hawaii's claim to earthly paradise must rest on *poi,* then romance is doomed. For with this starchy concoction of mashed taro root, only the bold will dally beyond the experimental stage. The historic place of taro along with the cocoanut, pandanus, breadfruit, and yam, in the struggle for existence of the old time Kanakas, will not soothe the qualms of the modern digestive apparatus.

Fortunately, however, the case of Hawaii Nei (Hawaii the Beautiful) rests also with her volcano, Kilauea, her snow peaks, Mauna Loa and Mauna Kea, and the gigantic ancient crater of Haleakala. It rests also on the lush green foliage of her rugged mountains, on headlands of black lava washed by the bluest of oceans, on beaches blazing white in tropical sun. And even the most skeptical must concede palms, moonlight, and surf at Waikiki.

Hawaii's history is also not without glamor. On the exact origin of the brown-skinned peoples called Polynesians whom the British Captain Cook found here in 1778, authorities do not agree. However it is supposed that their remote ancestors came from Tahiti, Samoa, and the Marquesas, voyages in outrigger canoes which would shame Columbus into obscurity.

Furs from the American Northwest for the China trade first made these islands important to European and Yankee ship skippers. Here the long sea trek to the orient was pleasantly broken and necessary water and provisions were stocked. Later a Captain Kendrick of a brig out of Boston contracted for several cargoes of sandalwood from the island of Kauai. This rich trade, also with China, started Hawaii toward modern civilization. But by 1819, the year of the death of King Kamehameha, a chieftain who succeeded in bringing all the islands under one rule, the native sandalwood was beginning to be exhausted.

About 1820 missionaries from Boston and Yankee whaling ships descended on these islands almost simultaneously. The missionaries converted Hawaiian royalty and gradually extended their influence by schools and good works. They succeeded also in curbing to a certain extent the boisterousness of the whaling skippers and crews. The whaling industry, however, was responsible for great prosperity in the middle of the nineteenth century. Often more than a hundred sailing vessels, and some times a hundred and fifty, crowded Honolulu harbor.

From the beginning American influence was strong, and while sailors and missionaries often disagreed violently, they early veered Hawaii toward the United States. The discovery of petroleum to take the place of sperm oil in 1859, and then the American Civil War, caused the whaling industry to languish. Later, however, occurred an influx of American capital and profitable commerce of the sugar planters with our Pacific Coast. Then in the year of the war with Spain, the Hawaiian Islands were formally annexed to the United States.

But to return to our skeptic officer, Honolulu bound, we find his appetite and interest in the future quickened now that the choppy seas off Golden Gate are well astern. He scans the chart of Pacific islands and notes Honolulu about twenty degrees above the equator, nearly opposite Yucatan in Mexico and Hongkong in China. His sleep the last night out may be troubled by fancied pronunciations of the seven largest islands, from northwest to southeast, Kauai, Oahu, Molokai, Lanai, Maui, Kahoolawe, and Hawaii. But on learning that early chronicles called Oahu, "Woahoo," and Honolulu, "Hanaroorah," he may feel better.

Oahu Landmark, Diamond Head from Waikiki

Soon after dawn as the transport bow startles the day's first squadrons of flying fish, the misty mountains of Molokai loom off the port rail. A few minutes

later green cliffs of windward Oahu and rocks of Makapuu Point rise from the sea on the opposite side. The ship glides past weathered and arid Koko Crater and Koko Head. Then tawny Diamond Head is rounded and Honolulu of turbulent history in the days of sandalwood and whaling ships lies peaceful in her mantle of trees against the background of green mountains.

Near Diamond Head white combers roll up Waikiki and palms of what was once a royal grove for princely diversion cluster around two huge hotels. Directly ahead in the inner harbor is a semicircle of shipping from the seven seas. And as the transport noses into Pier Five the band on the dock below plays Aloha Oe. Friends are waiting with flower *leis* to bedeck the incoming passengers.

From the ship Honolulu appears to occupy a narrow strip along the shore. The rugged green ridges of the Koolau Mountains seem to crowd the city into the sea. The business district and the shops which strongly suggest the Orient as well as the South Seas are but a block or so from the waterfront. But, as much of

A Beach on the North Shore

Hawaii's wealth depends on the sea borne traffic, this is not surprising.

Upon closer inspection it is apparent that this metropolis of the mid-Pacific covers an extensive area. From Red Hill on the northwest to the Kaimuki district behind Diamond Head a blanket of tropical foliage conceals its size. Flame trees, golden shower, red hibiscus, and purple bougainvillea blaze in a riot of color. Palms, monkey pod trees, and banyans help to hide the city's roofs. Residential streets split around Punchbowl, an ancient crater, and reach into the deep mountain valleys.

Driving through the city streets the *malihini,* or newcomer, is perhaps disappointed at the evidence of twentieth century modernity. Panamas and "Palm Beach" suits and the latest mainland fashions have displaced feather cloaks and grass skirts. If further proof of up-to-dateness is required, it may be mentioned that in Honolulu Town, once famed for sailors' revels and the barbaric hula, there are more than twenty "wee golf" courses.

Native Hawaiians are not as conspicuous as might be imagined. Waikiki beach boys, of course, and the big Kanaka cops present no difficulties in identification.

Varieties of Palms Near Honolulu

Lei women at the steamers and workmen with flower wreaths around their hats are easily picked out. Not so easily recognized as members of this genial race are the many city and county officials and the large, portly individuals who step from limousines on Fort Street.

The large oriental element presents a surprise. Driving along North King Street in the direction of Schofield Barracks, crowds with almond eyes, whose faces bear the stamp of the Land of the Dragon and of the Empire of the Rising Sun, throng the sidewalks. Chinese and Japanese form large racial groups. Filipinos are second in numbers only to the Japanese.

Explanation for the many malays and orientals lies in the labor needs of the huge plantations. No machine yet invented can cope with the task of harvesting tangled sugar cane. Hence as early as 1852, due to the decrease in the native population, about two hundred coolies were brought from Hongkong, China. When, later, the Chinese were attracted from the plantations to commerce, Japanese were imported. And now the Philippines have become a source for workers in the fields.

The Schofield Road, called Kamehameha Highway after a famous native king, leaves the city and plunges into dank tropical vendure. It twists through thickets of *algaroba,* cousin to the *mesquite* of the American Southwest, to the top of Red Hill. Here as the car swoops down-grade a panorama spreads.

For miles green seas of sugar cane extend. Aiea Mill, Ewa, and Waipahu are islands in this ocean of jade. The three shining lochs of Pearl Harbor break this monotone of color on the left, and on the right row after row of pineapple plants grow across the foothills of the Koolau Range. Cloud capped peaks of the Waianae Mountains form the backdrop.

Schofield Barracks is situated on the high Leilehua Plateau just below Kolekole Pass of the Waianae chain.

It is a little more than twenty miles from Honolulu and due to its height is several degrees cooler. Incidentally, while Hawaii's climate comes close to perfection, the comfort of blankets and woolen clothing during cold nights in the rainy season is no tropic dream.

After passing the town of Aiea the Schofield Road runs close to Pearl Harbor. The highway twists and turns as if its builders planned to pass every habitation in rural Oahu. Generally speaking, it climbs, through descents to gulch bottoms add variety and thrills as well. The sugar cane of the lowlands gives way to pineapple plantations in the red dirt for which Schofield is famous. Finally, as the rim of the second of two deep gulches is reached, the concrete barracks of the Post are in view.

It is not within our present scope to dwell upon the details of military life at this large garrison. However the pleasant contacts with officers of the Infantry and our other arms and services prove most valuable. Merely to take part in a division review is a visual lesson worth many text books.

Recreational facilities are here developed to their

One of the Many Gulches

fullest extent. Hawaiian football may sound as outlandish as the *hula* on the Boston Common, but when regimental rivals meet, the bands play, banners wave, and everyone turns out. Considering the numbers that attend, boxing is perhaps the most popular sport. On "fight nights" the bowl whose capacity is ten thousand people, is jammed. In all sports competition is of the keenest.

Individual sports such as golf and tennis are enjoyed without regard to season. In the upper Post the fairways almost in the shadow of Mount Kaala have their unfailing devotees. Tennis courts in the regimental areas are rarely deserted.

For the "horsey" gentry there are polo and the Schofield Riding Club. Rides through the deep gulches, the pineapple fields, and the guava thickets of the uplands are well attended. In the Spring the Division Horseshow is an outstanding event.

The universal diversion, however, is ocean bathing. On warm afternoons the hill road down to Waialua and Haleiwa on the north shore carries a peak load. The twenty-foot combers that roll in at Nanakuli tempt many, though they are dangerous for indifferent swimmers. Army members are among the crowds that acquire sun tan at Waikiki. And many take the

The Koolau Range from Waikiki

Nuuanu Valley Road over the Pali cliff to swim at Kailua on the windward shore.

In a tour of Hawaiian duty many officers visit other islands in the group. A few testify to the beauties of Kauai, the "Garden Island;" and some to the wonder of the huge crater at Maui, Haleakala, ten thousand feet above the sea and twenty miles around its rim. Most officers visit the fire pit of world famous Kilauea on the island of Hawaii. On this island also rise the majestic peaks of Mauna Kea and Mauna Loa.

Returning to our skeptic's doubts of Paradise at this cross roads of the world, we fall back on the accepted doctrine, "It all depends on the terrain," and claim that in piling up these rocks of coral and lava the Creator left little ground for complaint. It also may be argued that Hawaii's tourist trade ranks next in importance to the profitable sugar and pineapple industries.

Of the enchantment of these islands, each, of course, must form his own opinion. Here are rainbows in

Palolo Valley in the Koolau Range

the sky, sunsets in the sea, and palms outlined black in silver moonlight. And while in the serious business of living these things hold secondary rank, yet they add to the intangible satisfactions of life.

Industry and National Defense

Major General George Van Horn Moseley, U. S. A.

II[1]

WHEN the United States declared war on April 6, 1917, the authorities realized that a great task lay ahead in organizing the country to support our military effort. Many people were willing, but few were competent, to advise the President what to do. Our fixed determination during the first years of the European war to remain neutral, had been carried to the point of restraining us from making any reasonable preparations, of either a military or an industrial nature. When we found ourselves thrust suddenly into the war, army, navy and other authorities began to estimate our needs, and civilians sought ways and means of supplying these needs.

In an attempt to meet the difficulties which immediately made themselves felt, man after man was called to Washington and board after board was established. Each seemed only to add to the general confusion and, after finding itself powerless to make any progress in the task, usually was succeeded by another equally ineffective board. The long list of committees, boards, and councils formed at the seat of government during the year 1917, is evidence of the confusion which existed in the field of munition production. It would be gross injustice to belittle the accomplishments during this period of the many able men connected with the munition program. What men could do under the existing circumstances, they did. The difficulty lay in the fact that, at that time, in the field of industrial mobilization we were amateurs, further handicapped by our abiding faith in the efficacy of individual endeavor as opposed to governmentally coordinated industrial organizations.

Huge orders for supplies were placed without regard to the possibility of procuring the necessary raw materials and with even less regard for further and possibly more pressing needs of the nation. Prices sky-rocketed to dizzy heights as a result of indiscriminate buying, and industrial organizations received conflicting orders from various purchasing agents of the Government. Although it was early perceived that we were drifting into a condition of industrial chaos, it was difficult, even with the support and cooperation of all classes of citizens, to evolve an effective plan of action. The various steps that finally placed our industrial effort on a reasonably sound basis were taken slowly and tediously. They included the establishment of a civilian organization in Washington which, by virtue of the powers delegated to it by the President and conceded to it by industry itself, was able to centralize and unify the industrial effort of the country. Much effective work was eventually accomplished, both in the production of war munitions and in other uses of the economic resources to further the nation's best interests. Throughout the war we continued to ship great quantities of raw materials to the Allies, and many of our factories were continuously engaged in producing important items of equipment for them. However, though we entered the war as the leading industrial nation of the world, and were actively engaged for nineteen months, not one American-made tank was ever used on the battle front, and not until the Armistice had the most essential types of artillery shells reached quantity production. Such a delay in the future might, under different circumstances, have the most serious consequences for our country.

If industry is to meet the demands made upon it in war, and if the material resources of the country are to be properly organized, it is now generally recognized that they must be subject to the direction of one supreme head who will be responsible for the unified application of the power they develop. Such a conception of business methods is entirely foreign to the prevailing peace-time practice in our country.

The development of American industry in the last century has been accomplished under a doctrine of free competition, which permitted full exploitation of our national characteristics of self-reliance and initiative. The Government has wisely refrained as far as practicable from interfering with the fundamental laws of supply and demand. Governmental control has been limited, in theory, to that necessary to preserve free competition, and to prevent injustice to the mass of our citizens. The trite saying, "The more business in government, the less government in business," expresses epigrammatically the philosophy of our people respecting the individual's control over his own capital and his own efforts.

In war all this changes. Demand becomes not only abnormal but is measured in terms of national self-preservation rather than in capacity to pay. Time is vital. The interests of the individual must be wholly subordinated to the interests of the nation. Supplies must be obtained regardless of expense and effort. To avoid collapse and chaos, the government must assume control. Prompt action will be necessary, but snap judgment decisions should not direct this action. Efficiency can result only from study, from knowledge, and from deliberate preparation.

The board which finally supervised and controlled our industrial organization in the last war was headed by Bernard M. Baruch. In his final report on the activities of the board, submitted to the President in March, 1921, he stated:

(1) The second article of this important series.

"That much of the confusion experienced in collecting the supplies for this war could have been avoided by a more painstaking, thorough, and comprehensive effort on the part of the Government supply bureaus to work out a program of redoubt, even a program tentative in many of its details, there is little doubt. That such a program would have been exceedingly difficult to frame is quite certain.

"The experience of the board in this respect suggests the thought that there should be established a large unit of specially qualified officers of the War Department devoted in time of peace to studies of supply programs for supposititious military undertakings. As these programs would always have to be based upon the obtainability of the supplies outlined, the bureau should be required to go deeply into a study of the industrial resources and possibilities of the country as they relate to war needs. These studies are a military function, but they might have also, as a by-product, a healthy effect upon business."

The essentials of Mr. Baruch's recommendations were incorporated into law by Congress in 1920. The National Defense Act of that year places on the War Department the duty of assuring adequate provision for the mobilization of the national resources essential to war-time needs. The peace-time studies and plans which Mr. Baruch visualized are now demanding the constant efforts of a small group of specially selected officers who receive the voluntary assistance of experienced civilians.

It is necessary to make in peace reasonable estimates of the amounts of munitions essential for war, and they must be listed according to importance. Moreover, in peace we must plan for the distribution of war-time production to the various sections of the country in proportion to the productive capacity of each. It must be assumed, of course, that in war Congress will give the necessary directives which will enable the Executive to accomplish the 'scientific application of the industrial forces." The necessary requirements in labor, raw materials, facilities, power, fuel, and finance must be foreseen and provided for in detail. Where there promises to be a shortage in any of these, plans must provide for curtailment of certain industries in order to favor those whose activities are vital to the country's needs. There must be no interference during an emergency with the production of essentials for the civilian population. Plans for war-time control of prices must be reasonable, workable, and just. Finally, there must be sound plans for the control of the whole economic war effort through providing for a centralized organization of manufacturers, financiers, miners, farmers, labor leaders, lawyers, doctors, and in fact representatives of every part of our economic life.

Such preparatory work is merely to place our national house in order. It requires little expenditure from the public funds, and the most extreme advocate of total disarmament could scarcely make objection to its consummation. It indicates no attitude on our part unfriendly to any other government. In fact, it indicates nothing more than our determination to avoid the waste and inefficiency that have throughout our history characterized our initial industrial efforts in national emergencies. It seeks merely to apply sane business methods to government business in war, so that every individual will carry his share of the burden and the government will obtain one hundred cents of efficiency for every dollar spent.

Progress in the task is steady, even if slow. Its execution is made possible only by the hearty cooperation of all classes of citizens with the officers of the government. Happily, the modern American has exhibited a patriotism and interest in his nation's welfare which does not limit him to outbursts of wild enthusiasm when the enemy is actually at the gates, but impels him equally to participate in the humdrum work of peace, in order to assure the continued prosperity and security of his country. The work so far done gives reasonable assurance that never again will we have to go through the industrial nightmare of 1917; if we were attacked tomorrow, the work already accomplished would place us far ahead of where we were on April 6, 1917.

The solution before 1917 of the problems I have outlined, would certainly have had marked effect on our war effort. As to the lives it might have saved, and how much it would have hastened the final victory, one man's guess is as good as another's. Certainly it would have reduced the risks we took in entering a great war with scarcely an idea of how to equip and supply our armed forces. Today, we would be paying interest on a much smaller national debt. The most conservative authorities estimate that war expenditures under the assumed conditions would have been twenty-five per cent—about five billion dollars—less than they actually were. Plans that give reasonable promise of effecting such savings to American taxpayers, are worthy of the most serious consideration.

Practical Peace-Time Leadership

The "Case Method" Applied to an All-Important Phase of Military Education

Major O. W. Griswold, Infantry

LEADERSHIP can not be learned from a set of rules. However similar soldiers may be in the mass, individually each man has a distinct personality. In battle, in the face of danger and death, the soldier is stripped of all superficial attributes and reverts to the elemental man. The herd influence then becomes predominant. He ceases to think, and then reacts, as a matter of habit, to the things learned on the training ground.

In peace, such factors as education, previous occupation, race, antecedents, and home training make soldiers more individualistic. There is not present that common danger, as in war, to bring them all together. In peace, too, the application of disciplinary measures to suit the particular case may be efficacious as a deterrent. But in battle no disciplinary punishment, less than death itself, will affect any man who is crazed by fear.

The lives of Napoleon, Scipio, Hannibal, Caesar, Grant, Lee, Stonewall Jackson, and many other great soldiers abound in glorious exploits of leadership on the battle field. Conversely, the student may also find in history many notable examples of its failure. Unfortunately, however, there are few examples in print concerning the practical application of leadership in time of peace. Therefore, and since it is in peace that we should prepare for war, this study concerns itself more with the peace-time aspect of the question.

The following true cases, illustrating some examples of peace-time leadership, are stated from an observation of some twenty-four years' service. They are stated, not in a spirit of criticism or commendation, but in an effort to illustrate what are considered to be certain fundamental principles that underlie the application of peace-time leadership.

Case I. Some years ago, the graduating class at West Point was given opportunity, as a part of its instruction, to witness the usual Saturday inspection of one of the Regular Army detachments at that station. The detachment commander's attitude towards the men was one of extreme severity and faultfinding; any bunk not made up to his satisfaction was pulled roughly apart, and the blankets, sheets, and equipment were scattered upon the floor; noncommissioned officers, as well as privates, were admonished caustically and sarcastically before the assembled cadets; meat cans, knives, forks, and spoons, out of place or in poor condition, were thrown across the room; and several times the detachment commander lost his temper and used profanity. He seemed to take pleasure in finding something wrong, and failed to comment favorably on anything that was right.

The impression made on that graduating class was impressive and lasting. To their inexperienced eyes *this was the approved way to handle enlisted men.* Needless to say, every potential officer in that class was greatly handicapped during the formative years of his earlier service by the experience. It took years for some of them to readjust their ideas. This influence may have caused some of the storm of post war protest against Regular Army methods.

This case illustrates many serious errors in the psychology of troop leadership. First of all, it is an almost criminal illustration of the power of example wrongfully applied. Secondly, it violates every sembalance of dignity, justice, and good practice in the handling of enlisted men. Such treatment lowers their self-respect and exposes them to ridicule. It is unjust and arbitrary. It destroys loyalty and respect for the commander, the organization, and the entire Service. Finally, the tyrannical imposition of authority on subordinates by virtue of military command can never be defended. It is the act of a bully, not that of a leader.

Conversely, analysis of the case by the observant officer will guide him to a fundamental truth, which is that in most situations commendation is more powerful than condemnation. Applied to the case in point, it means that the detachment commander's mental attitude was destructive rather than constructive.

In making an inspection, then, the best method is to find first something satisfactory. Having once found it, make favorable comment thereon. Then point out carefully the unsatisfactory things, emphasizing the idea, at the same time, that only these latter things are holding back the individual or the organization from being uniformly up to the approved standard. Instead of arbitrarily ordering "do this" or "do that," the initiative of the subordinate can be stimulated by such questions as "What do you think about this?" "Have you considered that?" leaving him the working out of the suggestion. The senior has a direct responsibility in checking up on results. This course will almost always bring home to the subordinate that the senior is a friend, not an enemy; that he is trying to build up, not to tear down. Its strength rests upon the fact that any human being is proud to have or to do something above the average. He receives pleasure and incentive from the fact that it is noticed and praised by superiors. It works irrespective of persons, whether they be generals, colonels, majors, junior officers, noncommissioned officers, cooks, or privates. It may be applied to any phase of every day military life, whether it be between line and staff, at a drill, an inspection, a tour of guard, or even in the supervision of a police detail. The application of this principle detracts in no way from what military men call "force." If, after fair trial, good results are not obtained, then

direct orders and direct action are necessary. If these latter measures do not accomplish the desired end, then the individual becomes a proper subject for prompt elimination from the service.

Case II. Immediately after the World War, the then Commandant of Cadets at West Point was impressed with the necessity of developing the latent leadership of cadets while in the Corps. To this end, tactical officers were assigned orderly rooms in the cadet barracks. They were thus brought into direct contact with cadets. Disciplinary matters were handled under policies, exactly as in the Service. Tactical officers were enjoined to be strict but absolutely just, and were not empowered to use arbitrary measures of punishment. The tactical officer became, in truth, the "Old Man" of his cadet company. His daily administration of the business of that company served as a daily object lesson to the cadet throughout his course at the Academy.

A text book "Military Man Power," by Lieutenant Colonel L. C. Andrews, U. S. A., was obtained and a course of instruction was given by the Tactical Department. Initiative and responsibility were developed in members of the First (senior) Class, by requiring each of them to rate every cadet in his company twice each year in certain fundamental qualities of character and appearance. These ratings were resolved by a mathematical formula and incorporated into the cadets' general standing for the year.

Beneficial results were immediate. Cadets began to see that officers were not hereditary enemies. On the other hand, officers began to take more interest in their cadets. They arranged for special coaching for those deficient in studies, and a community of interest developed which resulted in the cadets asking for and receiving advice and help on private, personal, and official matters. This was accomplished without lowering the standard of discipline in the least. It is certain that the relationship between commander and commanded is now much better understood at West Point than formerly.

This case illustrates a fundamental knowledge of human nature, and the power of example rightly employed.

Case III. Some years ago a young married second lieutenant was ordered on foreign service. On account of a sick child who was unable to travel, he applied for and obtained from The Adjutant General one month's delay in sailing. Upon arrival at his new station he was severely reprimanded by his colonel for the delay in reporting. He was further told in no uncertain terms that his future actions would be guided strictly by "the law." The colonel emphasized the nature of that law by pounding on a copy of Army Regulations. The child died later from the effects of the trip.

Though the colonel later apologized, no amends that he could ever make could remove that subordinate's sense of resentment and injustice, shared in common with all junior officers of the regiment. The colonel had lost their loyalty and respect. Apparently, however, he learned nothing from the incident, for as long as he commanded the regiment his methods were those of a martinet. Officers were being put in arrest and trials of officers and men were frequent. Outwardly, the regiment had every appearance of being an excellent organization; within, loyalty, esprit de corps, and morale were very low.

This case illustrates lack of understanding and sympathy on the part of the superior. It exemplifies also rule by fear. While the power to punish is a necessary attribute of command, it should be resorted to only when necessary. In some cases punishment should and must be given. Too often, however, the rule by fear is applied by all ranks in our Service. Enlisted men are too often tried by their company commanders because it is the easiest and quickest way to dispose of the cases. If a case contains any unjust or unfair elements, irreparable harm to morale is certain to result. Higher commanders sometimes centralize punishment, by policy, so that an enlisted man is tried irrespective of the wishes of his company commander. If the superior is of the martinet type, such a policy is harmful.

In any well disciplined organization, the superior must uphold the authority of the junior. The superior, however, has an equal duty in seeing that the subordinate does not act unjustly.

Case IV. Incident to border trouble, a certain infantry regiment was ordered to Texas some fifteen years ago. Prior to a practice march, a company commander of that regiment, just assigned, gave his company specific orders against drinking water from unauthorized sources. He explained that much of the water in the country was unsafe to drink. As the company had many recruits, he made the necessity for the order clear. In the course of the long march, the company halted, hot and tired, near a stream. Immediately on breaking ranks, one of the outstanding sergeants in the company, a man of long service, was seen drinking from the brook. In the presence of the assembled company, the captain quietly and without resentment cut away the sergeant's chevrons and assigned him to a squad as a private. Upon return of the company to the post, the regimental commander confirmed in orders the reduction of the sergeant to the grade of private.

This case illustrates a fundamental principle of command—an order once given must be strictly enforced. The sergeant's usefulness as a leader was destroyed by his own action. Since he himself did not obey, how could he expect obedience from others? Had this offense been left unpunished, the discipline in that company would have been nil. The fact that the punishment immediately followed the delinquency is an important point to note. This case also illustrates a very human trait of soldiers, which is to try out a new commander.

Case V. A new tactical officer was assigned to and joined a cadet company at West Point on the day that it completed a week's practice march in inclement weather. At Saturday inspection the following day,

many rifles were found dirty and rusty. The tactical officer immediately ordered a special inspection in one hour's time for those cadets whose equipment was not in satisfactory condition. Some rifles were again found to be unsatisfactory. Two supplementary inspections were held during the day for those cadets who had failed to come up to the required standard of the previous inspection. The few who had unsatisfactory rifles or equipment at the fourth inspection were at once awarded five demerits and ten confinements[1] or punishment tours. In addition thereto, they were confined to barracks until such time as their cadet captains had passed their equipment as satisfactory. On subsequent Saturday inspections, appropriate punishment was invariably awarded without any second opportunity to make good. Needless to say that particular tactical officer had no further trouble with the care of equipment.

This case is selected as illustrating two points.

First of all, class punishment should not be employed where individuals are at fault. While the entire company was generally unsatisfactory, there were individuals who did have excellent equipment at the first inspection. It would have been basically unsound to hold them further because others had failed to come up to the required standard. The course adopted put a premium on good work, but was absolutely inflexible as to poor work.

Secondly, sincerity of purpose will always produce results. The easiest way to have handled this situation would have been to punish all delinquencies at the first inspection. However, this would not have changed the condition of equipment for that particular Saturday. Moreover, such a course might have been unfair to certain individuals, on account of the short time available to prepare. The tactical officer wished to stress cleanliness of equipment rather than punishment. The series of inspections took all day, and sacrificed the leisure of all concerned. It impressed the fact that the equipment *must* be in a satisfactory condition. It gave the necessary time and opportunity, and only those cadets who were not playing the game received punishment in the end.

The action was designed as an object lesson, that no matter how disagreeable the task, poor performance would not be tolerated. This principle is susceptible of extensive application in ordinary every day military life. It is based on firmness rather than unnecessary harshness. Certain methods by one type of leader will not secure the same results when applied by another. The principle therefor is fixed, but the method of application often varies.

Case VI. A general officer was once visiting a large post. Part of the troops were out in a model camp erected to help with the instruction of students. Accompanied by the post commander, the colonel of the regiment, and other officers, the general made an inspection of the camp. The party came finally to the camp latrine, in the construction of which a certain corporal had displayed great interest, energy, and initiative. The corporal was present at the inspection, full of pride in the consciousness of work well done. The general turned to the post commander and complimented *him* highly on the installations, saying that it was the best field construction that he had ever seen. The corporal who had done the work, stood by unnoticed by the general as the party passed on, but the wise post commander himself complimented the corporal as he left.

Passing later to the picket line, everything was found in excellent condition. Somewhat perfunctory comments were made by the general until he spied a man nearby grooming a horse. He stopped and gave a long dissertation in the hearing of the men on the general unsatisfactory methods of grooming animals, not only in all branches of our Service, but in that organization in particular, and called attention to that man as an example. The man was so humiliated by the gibes of the other men, and by the fact that he had brought adverse criticism on the company that he later attempted to desert the Service.

This case should hold some valuable lessons for the observant officer. First, men always respond to interest in themselves and their work. It would have cost the general nothing to have asked the corporal a few questions about himself, and to add a quiet word of commendation.

Another striking point is the readiness of the post commander to give due credit to the man actually responsible. Selfishness is a rock upon which so many promising military careers are wrecked.

Humiliation of a junior can never be condoned. It is probable that the incident about grooming the horse passed from the general's mind within the following five minutes. He simply took that means to drive home a lesson. Yet he unwittingly humiliated one man who probably will never forgive or forget, and lowered the morale of an entire organization.

To summarize, two authorities analyze and evaluate alike the inherent qualities which they consider essential to leadership. Too often, discussion on these points obscures the essence of what leadership should accomplish. The purpose of leadership is to secure the whole-hearted physical and moral cooperation. When such cooperation is spontaneous and free, and not until then, has true leadership been established.

Without attempting to state specifically all the principles of leadership, it may be said that they are the basis for all that a commander does to secure for himself the sincere, loyal, and voluntary cooperation.

In the analysis of cases lies the key to the practical application of troop psychology. Any officer of experience can state many examples, both good and bad, from his own observation. The inexperienced officer, however, can only observe and benefit from the methods of others.

Granted that instruction in troop psychology is necessary, the next consideration is to determine the best method of laying foundation. The applicatory method, supplemented by study and lectures, is preferable to all others.

[1] Required to remain in their rooms during leisure time on ten Wednesdays, Saturdays, and Sundays.

Antiaircraft Instruction for Cavalry Machine Gunners

By Captain Thomas J. Heavey, 2nd Cavalry

THE Cavalry Board at Fort Riley has recently completed a test of the Tentative TR 300-5 Antiaircraft Combat. It fell to the lot of the writer to construct the range for this test, and being by inclination and fortunate circumstances a cavalry machine gunner for the major portion of the last twelve years, the machine gun phase of this test firing was to me of particular interest.

Training Regulations No. 300-5 (Tentative) seem to have executed a "glissando" on this subject. Par. 12, *b*, thereof tells us that the machine gun mount as now issued is not suitable for antiaircraft fire. And again in sub-paragraph *e*, of the same paragraph, we are told that the outline of training as given in TR 300-5 is applicable to the training of machine gunners. Such remarks remind one of the old wrapper of Mother Hubbard, they cover everything in general, but nothing in particular.

Our problem in the Cavalry is different from that of the Infantry in that we are even worse handicapped as to a suitable mount. But we must at least do the best that we can.

Specifically, the issue tripod is not an antiaircraft machine gun mount, but the gun itself may be simply, cheaply, and quickly modified, so that it may be mounted on the issue tripod, and be used as an antiaircraft weapon. Naturally it is not an ideal weapon, when so mounted, but it is considerably better than nothing. The modification referred to is illustrated. Two holes through the side plates, just in rear of the trunnion block permit the securing of the gun to the elevating screw, by means of the elevating screw pin, and this mounting acts as a universal joint. Both elevation and traverse are permitted, within reasonable limits. The gun will never be effective unless mounted and ready to fire when the hostile target appears, but it is hardly fair to assume that this condition will never exist. When time permits the mounting of the gun, comparative results of the test are of interest.

Browning Machine Gun Mounted on Issue Tripod for Antiaircraft Fire

However, I have to differ from the general statement that rifle methods of training for antiaircraft fire apply as well to machine gunners. The ultimate objective of this training, regardless of the weapon employed, is the same, but the principles involved are entirely at odds.

A simple illustration I hope will bring out this. Assume a machine gun tuned up to a cyclic rate of 600 shots per minute, firing on a plane crossing the front at a reasonable slant range of 500 feet. If the plane is moving at 150 miles per hour, it will move 22 feet every tenth of a second. The machine gun, let us assume, fires a burst of five shots. The lead is such that the first shot of the group is a hit at the forward part of the prop of the plane. Assume also that the machine gunner is using "rifle methods," that is, he has swung his line of sight through the plane from rear to front, and pulled the trigger when he had the ordered lead. Where does the second shot of the burst go? It leaves the muzzle one-tenth of a second after shot number one, and passes the same point on the course of the plane that the first shot does. An artificial assumption, because there will be dispersion, but sufficient for the argument. The plane is now 22 feet further along its course. The second shot is wasted, for the vulnerable part of the plane is only 11 feet in length. Also the third shot, and all others.

The machine gunner will get just as great effect on the plane by firing single shots as he will by firing bursts. The same condition exists when the machine gunner gets "clever" and lays down a cone of fire for the plane to fly through. Assuming everything is ideally set, he can not get more than one hit, and the probability of that is only ½, the vulnerable length of the plane in proportion to the distance traveled between shots, 11 feet to 22 feet.

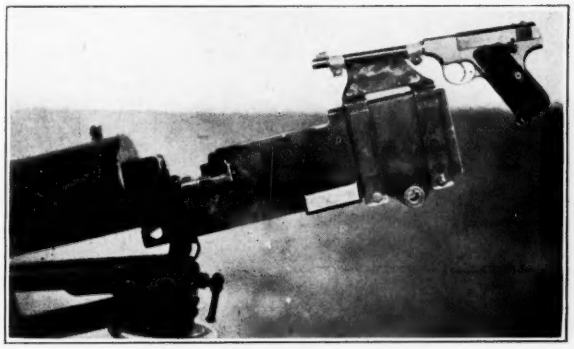
However, if we can train our gunners to *maintain* the ordered lead, and fire continuously whenever he can get and keep his sights laid at this ordered lead the situation is different. Theoretically, if the lead is correct,

our hits are dependent upon the proportion of the size of the cone to the size of the target, as the cone is moving along with the target, and covers it. Actually, a different result appears, because the correct lead is constantly changing, varying with the slant range. But at some time, it is possible that the ordered lead is correct, and though it be for only a second or two, the result on the plane is obvious, or in combat, would be.

The problem before us is to give the machine gunner training along this general principle, namely, *continuing fire at the ordered lead,* and *maintaining the lead.*

The moving targets designed in the Training Regulations, can be used just as well for machine gunners as for riflemen. And the issue tripod, mounting the modified gun, gives the gunner practice in manipulation, which is quite a problem at best. A Colt .22 Cal. Automatic Pistol may be clamped on to the receiver of the machine gun, and we now get basically sound training for the gunner. In all the courses of firing at the moving targets, he fires as many shots as he can, by simply pulling the trigger on the pistol, and he tries to maintain the ordered lead. In actual practice, none of the gunners were able to empty the magazine, ten shots, at one course of the target, but seven and eight shots to the rifleman's one, was not uncommon. The actual scores obtained with the automatic pistol were not, as a matter of fact, as high as the individual shots fired by the riflemen. Possibly the pistol is not quite as accurate as the gallery rifle at this range, 1,000′. But this practice in manipulation of the machine gun, and the practice in maintaining the ordered lead, in conjunction with firing as quick as possible, brought forth results on the towed targets that, when impartially analyzed, are worthy of most respectful consideration.

The machine guns proved to be equivalent to ten riflemen, in firing at the towed targets at mid ranges. But in all the firing, due to having no ammunition to spare for the test, the machine guns were limited to fifteen rounds for each course of the towed target. In my opinion, they could have easily fired three times as much as this, and in most cases five times as much. Had the percentage of hits per number of rounds fired remained the same, no conclusion could be reached other than that the rifle equivalent for a machine gun was from thirty to fifty. The amount of ammunition expended on an emergency mission such as this actually would be, is immaterial. If the machine gunner could get the plane or inflict morale damage to the hostile



.22 Cal. Colt Automatic Pistol Mounted on Browning Machine Gun for Preliminary Instructions in Antiaircraft Firing

aviator, any amount of ammunition would be justified. The riflemen do not conserve ammunition in such a situation, for the very sound reason that they are out to get the plane, regardless of anything else. And surely one machine gun will not give the plane such a target as thirty to fifty riflemen.

I have seen numerous reports of firing of ground machine guns against towed targets, with invariably the tabulated figures to prove that the rifle is the most efficient weapon for this type of combat. And I have as consistently believed that the author of the particular article was not a machine gunner, but a rifleman. All of us are human, and it makes a world of difference whose baby has the measles, when we pass judgment. But let us not be misled by results obtained by machine gunners that have had "rifle methods" of preliminary instruction crammed down their throat. There is little doubt left in any one's mind as to the relative effectiveness of rifle and machine gun fire in every imaginable situation of combat on the ground. Why the reporting officers have "discovered" the rifle superior to the machine gun in antiaircraft combat is, to me, an anomaly. Perhaps it would be well for us all to dig in and find out *why* the discovery, and be sure that we have not overlooked something in the training of our machine gunners.

The use of this .22 cal. pistol on the gun, modified to permit antiaircraft fire, is submitted to these "discoverers." It is not the answer, admittedly, but I hope it will serve to direct our research along lines that will bring us all, Cavalryman, Infantryman, or layman, to the frame of mind that will let us be impartial toward the automatic weapon, and see some value in having them with us when menaced by attack aviation.

Reservist Field Training

Lieutenant Colonel H. E. Finch, Corps of Engineers

IT WILL be generally conceded that the primary duty of the Regular Army is to keep itself prepared for efficient service in the field, and it is reasonable to assume that its next most urgent duty is to aid in the training of the National Guard and the Officers Reserve Corps—those vitally necessary components of the Army of the United States.

As is well understood, this training involves inactive instruction at the home station of the Guardsman or Reservist as well as active field training at summer camps. This discussion is designed to cover certain points of the administration of reserve encampments and the nature of the instruction presented during these 14-day periods. For convenience these points are discussed under separate headings.

Circulation of Advance Information. No emphasis need be laid on the fact that the Regular, detailed for reservist field training, wants to provide as efficient an encampment as possible. One aid in that direction is to send to each prospective trainee (on receipt of his orders) a form letter giving full information concerning the camp, how to get there, what to bring with him, what not to bring, where to report first, accommodations at his disposal, whether or not he can procure items of uniform equipment after arrival, advance procurement of longevity pay statement, and the like. These letters are of value since they can be drafted to answer a multitude of questions before they are asked. In addition, it is an excellent plan for the senior instructor to send to the commander of each unit that is to attend the camp, in advance, a letter of information about camp policies on administration and training, accompanied by a sample instruction schedule.

Time of Arrival. The federal expenditure on Reserve training, ranges around three million dollars a year. In order that the greatest dividend may be secured on this investment it stands to reason that the largest possible amount of training time should be secured from every bit of the 14-day period. One excellent method of doing this is to organize the camp so that all physical examinations are completed on the Sunday of arrival. The form letter referred to should carry a paragraph requestiong the Reservist's cooperation to the extent of arriving on Sunday and early enough in the day to enable the medical personnel to examine him physically during daylight hours. This point does not require a great deal of extra exertion, but it is frequently overlooked with the result that half of the trainees loaf around during the greater part of the first Monday forenoon while the other half are being looked over by the doctors. If the available Regular Army Medical Corps officers are not numerous enough to carry out the Sunday "contract" it is usually easy to secure, by action through corps area headquarters, the detail of Medical Corps Reservists, care being taken to see that the time of their arrival is advanced one day so that they will be available for a prompt start on Sunday morning. During a recent encampment an organization of one dental and three medical officers of the Regular Army, assisted by one dental and three medical Reservists, made 130 thorough physical examinations on one Sunday between 9:00 A. M. and 7:00 P. M., with time out for luncheon and dinner. This total could have been raised to 150 without undue exertion.

It is sometimes alleged that reserve officers will not cooperate in the matter of timing their arrivals for Sunday, if this involves travel during any time whatever, even an hour or two, for which they do not receive federal pay. This apprehension has been thoroughly discredited in experience extending over five years. Something depends upon the manner in which the "approach" is made in the form letter, but it may be stated as a fact that the great majority of reserve officers will take the broad rather than the narrow view of the obligations assumed by them with their military commissions and will cooperate even at some inconvenience to themselves in the matter of timing their arrivals at the encampment.

Registration. Upon arrival the trainee (according to the directions in the form letter) should report at once to the registration office, located preferably in the same building or tent where the physical examinations are to be made. At this office he records his arrival and furnishes to the regular personnel the data required for his active duty report and for the preparation of his pay voucher. At this time the Reservist settles a number of points about his pending period as Uncle Sam's "guest." For example, he turns over the data (secured in advance from corps area headquarters) entitling him to longevity pay, he receives his room or tent assignment, he arranges with the transportation officer for the hauling of any baggage left at the railway station, and so on.

Physical Examination. The physical examinations should follow immediately after the trainee has registered his arrival and has talked to the clerks who handle the pay and baggage arrangements. Seats should be provided for those awaiting examination. The instructors will find this period of waiting a profitable one in which to meet the Reservists personally and to discuss training matters with them.

Equipment Issue. On account of the small amount of individual equipment that has to be furnished to each trainee, it has been found to be practicable to make this issue late in the afternoon or early in the evening of the Sunday of arrival. This removes one

of the most fruitful sources of delay. If the issue is deferred until the following morning there is bound to be interference with what should be a full forenoon of training.

Mess and Quarters. A well conducted mess is a great agency for maintaining a high morale wherever men are grouped together. It has been found that a satisfactory field mess feeding from 50 to 150 men can be conducted at a cost of not more than one dollar and a quarter per day per individual. Many messes have run far beyond this figure—with consequent dissatisfaction. There is sometimes a tendency to be too parsimonious in supplying equipment for camp messes, but no excuse can be seen for this practice in view of the present cheapness of enamelware dishes and plated cutlery.

In the matter of quarters, there is a tendency to employ the camp janitors or mess attendant, to make beds, sweep floors, polish leather, and the like. In the writer's experience this practice has not been satisfactory. Ordinarily the men employed will neglect some of their work in order to serve those who are generous with gratuities. It is a particularly bad practice to permit the employment of table waiters and kitchen police as strikers. After considerable experimenting the writer is prepared to recommend that all janitor and orderly service be dispensed with at encampments except that needed to keep the company streets, bathrooms, and toilets in good condition. This implies that each Reservist should be called upon to cooperate to the extent of making his own bed once a day, sweeping his tent floor, and "dragging" his own water. There will be few cases where this cooperation will not be cheerfully extended—particularly when the Reservist finds that the practice is an economical one for himself.

Solicitation for Contributions. It will be found to be an excellent rule to have it understood that the trainees are not to be solicited for any contributions for any purpose whatsoever. This rule is frequently violated in the interest of some more or less worthy cause, but the practice is one to be rigorously avoided. A levy of no more than twenty-five cents per capita has frequently produced a twenty-five-dollar grouch. But aside from all adverse reactions, it is sound policy to avoid all contacts that involve money between the instructor and the trainees. After the Reservist has paid his mess bill and his laundry and camp exchange accounts, he should be free of all financial obligations whatsoever, so far as the encampment is concerned.

Camp Exchange and Quartermaster Sales Service. If the encampment is held at a regular army post it is very desirable to secure the cooperation of the post quartermaster and the exchange officer in order that a sales service on the afternoon of the Sunday of arrival may be provided for the trainees. It frequently happens that an individual will report to the encampment with incomplete uniform equipment, and this service gives him an opportunity to remedy the deficiency without interference with the training, which should begin promptly on Monday morning.

In this connection it should be noted that young R. O. T. C. graduates, attending their first reserve encampment, are often in no financial position to supply themselves with the complete uniform equipment. It is very desirable to encourage these young officers, both before and during the encampment, by aiding them in securing government issue items.

Motor Transportation. To carry out practical field training through terrain exercises and tactical rides, it is necessary to have a certain amount of motor car and truck transportation. There is often a great deficiency in these items and instruction is consequently much handicapped. Where this situation exists the only practicable solution that the writer has found is to designate (with the consent of the owners) certain privately owned cars as "official," thus, under a liberal interpretation of the regulations, entitling the camp quartermaster to supply them with the gas and oil consumed while on the government business of transporting trainees.

Daily Sick Call. If the camp is held at a regular army station the normal 8:00 or 8:30 A.M. sick call does not fit in conveniently with the field training day. It is feasible, however, to have a daily sick call in the camp, say, at 7:00 A.M., supervised by a medical Reservist if one is available.

Exemption from Administrative Work. A tendency is sometimes noted to require reserve organizations in camp to handle a large amount of routine administrative work, the usual excuse being that it gives the units experience. This practice has little to commend it because such experience as is gained is offset many times by the fact that the field work missed by the officers engaged on administrative duty is of far greater value to them professionally. This is not to argue for neglecting administrative work, but for taking the emphasis off of routine office procedure and placing it on field training. It is altogether unlikely that the adjutants and supply officers of the present day will act as such in future emergencies.

Daily Schedule. The schedule of hours will vary with the locality and the climate. The following setup of hours is recommended as being applicable to a wide range of situations:

Calisthenics	6:00 A. M.
Breakfast	6:15 A. M.
First Training Period (command drill, infantry close order, etc.)	7:15— 7:45 A. M.
Second Training Period (terrain exercises, demonstrations, etc.)	8:00—11:45 A. M.
Luncheon	12:00 Noon
Third Training Period (terrain exercises, demonstrations, etc.)	1:00— 5:00 P. M.
Dinner	6:00 P. M.

Types of Training. Considering the small instructional value of lectures, it is astonishing that so many instructors still rely on them so largely in reservist field training. Lectures are certainly one of the least efficient instructional agencies, and even the limited value that they possess is further reduced when they are used under the conditions that prevail in the average summer training camp. It has been demonstrated repeatedly that practically all lectures and classroom

work can be eliminated in connection with encampment training, and the instructors who have eliminated these agencies in favor of terrain exercises, tactical walks, and other forms of field instruction will never be persuaded to return to them. There is no question but that terrain exercises, designed to employ the reservist organization *as a unit*, have the greatest value as instructional agencies, particularly when the exercise places some responsibility upon each headquarters as well as on the individual reservist, and at the same time is under the supervision of a regular army instructor. It is difficult enough to simulate war conditions in peace-time training, but well formulated terrain exercises approach this goal closer than any other form of training.

To secure the maximum efficiency the terrain exercises should be coordinated with the map problems given during the preceding inactive training season.

Unit Integrity. Wherever possible it is an excellent policy to preserve the integrity of reserve units in an encampment, it being understood, of course, that individuals and small groups will have to be attached to regimental organizations represented by larger numbers. In this connection it may be said that where an excess of field officers exists, it is not necessary to over-staff the regimental and battalion headquarters; the experiment has been tried successfully of utilizing junior majors as company commanders, in the absence of captains for these posts.

Along with unit integrity should go unit responsibility, without, however, going to the point of requiring organizations to conduct their own training throughout. Always there should be regular army supervision, with the understanding that the terrain exercises are to be so drafted that each echelon of the organization will be employed on its own responsibility.

Amount of Training Time. The large federal investment in reserve training places the responsibility upon the instructor of securing the maximum amount of training time out of the 14-day encampment period. It has been found that 10½ days can be devoted to training without undue hardship on anyone, the subdivision being as follows:

First Sunday	Arrival, registration, physical examination, issue of equipment.
5½ days of 1st week	Training time.
Afternoon of 1st Saturday	No duties.
Second Sunday	No duties.
5 days of 2d week	Training time.
1 day (last Saturday)	Travelling.
14 days, including 10½ training days.	

Under the above arrangement, it will be noted that the afternoon of the first Saturday and all of the final Friday are allotted to training purposes. This allotment is based on practical experience extending over five years, and it has always met with the full cooperation of the trainees, even where the student officers had been accustomed to easier schedules at preceding camps. It appears that some instructors are content with less than the 10½-day maximum, and it is always easy to explain why a lighter schedule should be adopted. The fact remains, however, that 10½ full training days can be secured from the 14-day period without imposing undue hardship on instructor or trainees.

With the cooperation of the representative of the Finance Department, any individuals or groups that wish to leave camp on the evening of the final Friday, instead of the following Saturday morning, may be paid at the close of the Friday training period.

Demonstration Troops. Demonstration troops are not absolutely essential to successful encampment training but they add tremendously to the interest. It has been shown that a single regular army company can serve a large reservist encampment very efficiently. Take the subject of wire entanglements. Nothing satisfies the average reservist more than to have some practical work mixed with theory. In demonstrating the practical points of entanglement construction, it is an excellent idea, first, to have a 50-yard belt of wire erected by a trained regular army team, the individuals bearing numbered placards and the work being done in slow motion so that the reservist observers will have ample opportunity to follow the sequence of steps. The operation can then be repeated at normal speed. The third step is to have the reserve officers pair off with the regular army workers and carry through the operation. The fourth, and final, step is to withdraw the regular personnel and have reservist teams go "on their own." This procedure has been found to produce excellent results, particularly where competition is aroused among the reservist groups, based on the time required and the quality of the results. The third step, having the reservist pair off with the regular army worker, may be omitted if time is limited. Note that the only equipment needed for this exercise is a supply of barbed wire and pickets, together with gloves and overalls for the trainees.

In connection with the use of demonstration troops, a word should be spoken against requiring regular army platoons and companies to be subjected, over long periods of infantry drill, to the commands of inexperienced reserve officers. This practice has been found to make the men in the ranks sullen and unresponsive; it is hard on both regular and reservist. A much better method, where the reservists are inexperienced, is to have them devote most of their infantry drill periods to working on each other, leaving the periods of the last few days of camp for exercising command of regular organizations at drill.

Amount of Close Order Drill. It is easy to overdo the amount of close order drill, since it is something that everyone knows more or less about and can carry on more or less creditably. However, considering the far greater training value of field problems, it is hard to justify more than half an hour per day of close order work during the exceedingly brief training period.

Practical Work. Some instructors have commented upon the danger of subjecting reservist trainees to too much practical work or manual labor. But the writer has yet to encounter a camp where the reservists have ever complained of such a situation, and some of these camps have included the hardest kind of practical work. The reservist's reaction appears to be that,

since work goes along with war, he might as well sample it. The average man's intelligence tells him that a knowledge on the part of the officer of the difficulties connected with practical operations may well be invaluable to him when the time comes for him to take men through these operations. Considering that terrain exercises are necessarily mostly theoretical, it is hard to find time to put in enough practical work in a reserve training schedule.

Employment of Instructors. The policy has been followed, in some cases, of requiring the reservists to take the field and work out problems which they, themselves, have prepared. Aside from the fact that this policy evades responsibility that should be assumed by the regular, it stands to reason that it is not a uniformly efficient method of training. Experiments where this has been tried have often proven this point. It has also been demonstrated that, in order to conduct terrain exercises properly, there must be provided a group of competent instructors. When the unit instructor attends the encampment, the method is sometimes followed of having him conduct his unit through all phases of the training program. A much better method, employed successfully in many camps, is to "specialize" the instruction by assigning an individual instructor to each of the major terrain exercises around which the encampment training is centered. Under this arrangement, a designated instructor remains on each exercise and conducts each regimental group through the exercise in turn. With repetition he becomes very expert in the presentation of his instruction. In addition to such assignments, the instructors, if necessary, may be allotted secondary duties as assistants to other instructors or as supervisors of demonstrations during the days when they are not on duty with their own terrain exercises.

It is no easy task to supervise a reserve training camp efficiently. The handicaps of inclement weather, shortage in time, inadequate preparation on the part of the trainees, and deficiencies in terrain and equipment are always present. The physical exertion and nerve strain imposed upon instructors are often very fatiguing. But these undoubted drawbacks are offset by the satisfaction derived from the response that properly handled field training infallibly generates in the trainees. Reserve officers under real leadership *will* work, and work hard, at military tasks even in time of peace, and it is the duty of the regular, the leader, to furnish the inspiration.

The 1930 Leadership Test

By Major Clark P. Chandler, 1st Cavalry Brigade

THE Leadership Test for Small Cavalry Units, held this year at Fort Clark, Texas, between the 20th and 26th of November, was won by a platoon from Troop E, 5th Cavalry. Other platoons competing were from the 1st Cavalry and the 12th Cavalry. The Chief of Cavalry, in his letter of instructions, stated that the test was held this year at Fort Clark to allow an entry from a regiment, the 12th, which had not yet had an opportunity to compete.

The platoons from the 1st Cavalry, Fort D. A. Russell, and the 12th Cavalry, Fort Ringgold, were transported to and from Fort Clark by motor trucks. Both platoons started from their home stations so as to arrive at Fort Clark November 9th but heavy rains delayed them so that the last platoon, from the 1st Cavalry, arrived on November 12th after herculean efforts on the part of men and animals in hauling the trucks thru the mud. Portee Cavalry is hardly practicable in this country except in dry weather.

As in past years, the test consisted of two phases, the Individual and the Leadership Phases with, this year, a value of 25 per cent and 75 per cent respectively. The final standing of the three platoons follows:

Platoon	*Individual Phase*	*Leadership Phase*	*Total*
1st. 5th Cavalry .. 1st Lieut. C. A. Thorp	18.3183%	68.8316%	87.1500%
2nd. 1st Cavalry .. 2nd Lieut. S. L. Myers	16.4741%	64.3816%	80.8557%
3rd. 12th Cavalry . 1st Lt. C. G. Claussen	16.3123%	62.0483%	78.3606%

Individual Phase

The Individual Phase embraced a five and one-half mile ride across country with thirteen obstacles, five pistol targets, and seven saber heads along the course, and ended with five shots with the rifle at bobbing targets. The obstacles were not serious ones, none over three feet, and the pistol targets were placed at unexpected locations along the route. The saber heads were partly at jumps but three were so close together as to require very good swordsmanship to pierce them while galloping at not less than twelve miles per hour. Enlisted men were required to complete the course in a time limit based on a rate of ten miles per hour while the officers' rate was twelve miles per hour.

The course (and time limit) ended at the three hundred yard firing point on the target range where each man was required to dismount, advance with reasonable celerity to the firing point (his horse being taken by a horseholder and examined by a veterinarian), load, and fire five shots, one at each exposure of a kneeling figure of which there were five distributed across the width of the target butts. Exposure of each target was for three seconds with five seconds interval between exposures. It is believed that this was an excellent test of a man's physical condition, nerve, and disciplinary and marksmanship training.

The scores in the Individual Phase were remarkably close, with the 5th Cavalry Platoon slightly in the lead, but the great differences shown in the final score of this phase was caused by both the 1st and 12th Cavalry platoons having eight men take overtime varying from one to eight minutes. The animals of all platoons were in excellent condition.

It was very interesting to observe the different reactions by the men in the rifle firing. Many were cool and business-like, lying down to their job and "potting" each target as it showed—soldiers that any person felt he could trust in a pinch, while others showed indecision, "buck-fever," and failed to get in more than one or two shots. One might think that the former were the old soldiers and that the latter were recruits but such was not the case. There was as large a percentage of old soldiers as of recruits amongst the "bolo-men."

Leadership Phase

The Leadership Phase called for each platoon to make a two day march of about sixty-one miles, thirty-eight and one-half of which was on the first day and twenty-two and one-half was a forced march, at six miles per hour, on the second day. The platoons were reconnoitering detachments, in a friendly country, operating against raiding parties of irregular, poorly organized and disciplined, mounted troops with improvised armored cars and airplanes.

Their initial orders, requiring departure from the post at 6:00 A. M. on successive days, gave them an offensive mission and a march of about eight miles in two days. The forced march was occasioned by a message, received at 7:00 A. M. on the second day, requiring their return to the post by a direct route and to arrive by a certain hour.

On the first day's march the platoons met a variety of tactical situations upon which they were graded, according to a scale of values furnished by the Test Board, by neutral cavalry field officers. These situations included various tactical problems, such as marching, encounter with an armored car, and concealment from airplane observation. As a matter of fact the platoons were not actually graded on their actions upon the arrival of an airplane on the scene, since on the first day the airplane failed to appear due to weather conditions. The weather however did not interfere with the functioning of the cavalry platoon.

The rating of the platoons in each situation is shown in the following table:

Situations	Possible Score %	Platoon Scores 1st Cav. %	5th Cav. %	12th Cav. %
Attack on ranch	13	11.0000	13.0000	11.9200
Watering horses	3	2.4900	3.0000	3.0000
Armored car	5	4.6000	4.2000	3.0000
Passage thru a town	2	1.5000	2.0000	.8000
Conduct of march ...	7	6.9100	6.8400	6.4500
Defense against air observation	5	4.3750	5.0000	4.7500
Attack of dismounted position and M. G.	13	11.6900	12.0400	10.2900
Camp for night	10	8.2500	9.7250	8.9350
Passage thru a town	2	1.4000	1.4000	.8000
Forced march	7	4.4000	4.5000	4.2000
1st Veterinarian inspection	4	3.8900	3.5633	3.9833
2nd Veterinarian inspection	4	3.8766	3.5633	3.9200
TOTAL	75	64.3816	68.8316	62.0483

The first situation (Situation A) was inaugurated by the platoon's meeting with a rancher who informed the platoon leader of the presence of twenty-five or thirty hostile men at his ranch. Each platoon leader questioned the rancher intelligently and, quite properly, impressed him as guide. All platoons showed excellent training in this situation. They all attacked, mounted, with decision and fair rapidity, but the most notable defect—and that not to an alarming degree—was a tendency of the men to bunch and a failure to take full advantage of cover. One platoon was given a maximum rating by the Special Umpire who stated to the writer, "I really can't find a thing to cut them on. It was a perfect attack."

Situation B consisted of watering the platoon at a small stream at which not more than a squad could be watered at the same time. This was very well done, under cover of march outposts and with suitable precautions against air observation and attack, by all platoons.

Situation C was an encounter with an armored car. It is still a much discussed question as to the proper action of small cavalry units against armored cars. This car was encountered on an open plain absolutely devoid of cover. The Test Board believes that there is one essential—that the platoon should scatter quickly, widely, and with organization.

One platoon solved the situation by having the advance guard move rapidly a hundred yards to the flank and dismounting two men who fired at the car with rifles. Two of the advance guard remained mounted on opposite sides of the road and made direct hits on the car with hand grenades at a range of five feet. The main body broke to the right and left of the road, one squad to the left and two squads to the right. One of the two squads on the right of the road dismounted and fired on the car from a hundred yards distance, the other squad moved further out with the lead horses while the squad on the left of the road did some mounted firing. All firing continued until the car had passed.

The probabilities are that the grenadiers would have been disabled by fire from the car before they could have thrown their missiles. The platoon would probably have suffered losses due to their exposed position but, on the other hand, the dismounted men might well have disabled the car by rifle fire. Certainly the car could not stop to deliver accurate fire, for to do so would expose it to mounted attack by the squad only one hundred yards in its rear; and fire from a rapidly moving car cannot be well directed. Everything considered this seems to have been an excellent solution.

On the other hand, another platoon dismounted the whole main body at the edge of very low scattered mesquite about a hundred yards from the road, the advance guard having also dismounted a hundred yards to the same flank. In this case the car had practically nothing to fear from its rear. It could have halted and done serious damage, at mid or long range, to the exposed dismounted line and to the fully exposed led horses which were not at all dispersed.

The third platoon had still another solution—it avoided the car. The platoon was marching about two hundred yards to the left of the road, as it had been marching for the last five miles, with three or four men on the right of the road. When the armored car appeared the platoon dispersed and moved at a gallop to its left front to increase its distance from the road and at the same time to gain the shelter of the mesquite on the opposite side of the wide grassy plain. The armored car moved off the road to intercept the platoon and succeeded, when four hundred yards from the road, in gaining a position about three hundred yards to the platoon's right rear where it stopped to deliver aimed fire. The platoon was well dispersed but might very probably have suffered a few casualties.

This, also, is believed to have been an excellent solution for, while the platoon had an offensive mission, its orders were not to jeopardize its main mission of discovering and reporting large hostile raiding parties.

Situation D was the passage thru a small friendly town. One of the platoons boldly entered the town without sufficient reconnaissance and then passed thru it slowly. While the town was friendly it was well known that numerous hostile parties were abroad and the town might well have been occupied. Full precaution must be taken by small cavalry bodies before entering any town. Ambush is too simple under such circumstances. The other two platoons did not enter the town until it had been thoroughly reconnoitered in a systematic manner by the advance guard and then they passed thru quickly and in open formation.

Situation E was the judging of the conduct of the platoon's march over a distance of about eleven miles. All the platoons were excellent in their march conduct, discipline, and security.

At some time during this march an airplane (Situation F) was supposed to appear. Since it failed to arrive on the first day the platoons were not rated on their actions upon the actual sighting of the plane. All of the platoons were well trained in the use of air scouts and in precautionary measures against observation while on the march and while halted.

Situation G consisted in the attack of a machine gun supported by a half dozen riflemen. This hostile force

was posted on the edge of a ravine covering the road to a gate in a fence about eight hundred yards distance. Since we were not allowed to cut this fence, the represented enemy did not open fire until each platoon had cleared the gate. A very pretty problem here presented itself to the platoon leader. The ground, sparsely covered with low mesquite and cactus, sloped gently to a dry water-course below the machine gun position. About one hundred yards on the platoon leader's right was a shallow gully which was deceptive in that, to a hasty glance, it looked like cover but, in reality, was completely exposed, thruout its entire length, to the fire of the hostile machine gun. On the other flank, however, there actually was good cover from observation within seventy-five yards of the road, but this fact was apparent only to a keen, well trained, eye,—or an eye which had been examining the terrain with a view to cover in case of need. The ground to the front was negotiable by mounted men at speed but offered no cover. Beyond the gully on the right there was no cover whatever while on the left the cover mentioned above led to several small valleys and ravines which offered fair cover to within a couple of hundred yards of the machine gun position. It is apparent that an envelopment of either flank would require a small pivot of maneuver to hold the machine gun in place and to prevent its displacement laterally to meet the threatened envelopment.

As might be expected, this situation was solved differently by the three platoons. One platoon was marching with five yards distance between pairs of troopers. Because of the road space involved, the head of this platoon was less than seven hundred yards distant when the machine gun opened fire. The lieutenant immediately formed foragers at a gallop and, simultaneously with the completion of the movement, a member of his advance guard arrived, at full gallop, to point out the machine gun's position. The platoon charged at once, with raised pistols, at full speed. To quote from the "Remarks" on the Special Umpire's score sheet, "Attack over 2.11½ P. M.—1½ minutes after first shot was fired; very smooth, pretty work."

Considering that the head of the platoon was considerably past the available cover, this was, perhaps, the best solution under the circumstances. Certainly the attack showed quick thinking and a high degree of platoon training. The effect was somewhat marred, however, by the lieutenant's failure to continue on, with at least part of his force, against the hostile led horses which must have been, and were, somewhere in rear.

Another platoon leader was deceived by the apparent cover on his right flank and broke for that cover. Finding none he immediately broke for the other flank, leaving a squad to dismount and start a dismounted attack. These led horses would have been sacrificed. However, with the rest of his platoon the lieutenant executed a nice covered approach march and delivered a most excellent mounted attack on the hostile right. The training of this platoon was of very high order as evidenced by its instantaneous compliance with orders and personal example in an emergency.

The third platoon leader had the eye for terrain to see the cover on his left and he took immediate advantage of it. However, he then started a dismounted attack with two squads and sent only one squad around to attack, mounted, the hostile right. Had he left only one squad as the pivot of maneuver and attacked mounted with the rest of his platoon he would have had a practical perfect solution of the situation.

This was a difficult situation because of the deceptive quality of the terrain and the Board feels that all platoons functioned very well.

Situation H was a halt for the night, with the multitude of details of administration and tactical security incident thereto. All platoons showed a familiarity with camping and camp expedients that is only natural in troops that spend so much of their time in the field.

Situation K was a forced march. While the platoon's original orders required them, on the second day, to continue their reconnaissance for another forty miles, a message was received at 7:00 A. M. at their camp to return to the post by 10:45 A. M. because of the departure of the regiment at 11:00 A. M. The distance involved was twenty-two and one half miles. During this march the platoons had to pass again thru a small town (Situation I).

The forced march was well conducted by all three platoons but the road, for the last ten miles, was very much cut up from rains and truck travel, making the footing very uneven and causing leg weary horses to interfere and turn fetlock joints. This was especially noticeable in the last two days and both platoons concerned had several lame horses.

Platoons were closely examined by veterinarians upon arrival at Post Headquarters and again at 9:00 A. M. the following day. In all three platoons there were four sore backs characterized by the veterinarian as "slight." The horses were uniformly in good physical condition and fit to march with the regiment at eleven o'clock, fifteen minutes after arrival. The few cases of lameness were due, as stated before, to the terribly rutted condition of the ground, but none were bad enough to prevent the animals from continuing the march.

At the veterinary inspection at 9:00 A. M. the next day conditions were substantially the same—all animals fit to march.

Looking at the test from all angles, it was a most interesting and instructive affair. The best trained platoon won,—but the other two platoons are a credit to any regiment. Just from an instructional point of view it would seem to be a valuable test to give every platoon in a regiment at some time during the Field Training Season. The test element provides a competitive spirit.

It is to be earnestly hoped that, in future years, all of our cavalry regiments will have an opportunity to take part in this valuable competition, made possible by the Cavalry Spirit of a cavalry officer of an associate component of the Army of the United States.

The British Army Exercises of 1930

Captain B. H. Liddell Hart

IF any general increased his reputation in the exercises of 1930 it was General Rain. He showed a genius for striking at the crucial moment, a malevolently inspired *coup d'oeil* which other generals might justly envy. And unfortunately, like certain famous generals of the past, he seemed to have a jealousy of possible rivals, which made him uncannily alert to forestall and frustrate other generals.

This year he was unique in the decisiveness of his strokes. He even performed the "hat-trick". For, by curious coincidence, he submerged in turn the final exercise of the 4th Guard Brigade, of the 2d Division, and of the combined Aldershot and Southern Command troops on "the Plain". The consequences were the more disastrous because each of these exercises gave promise of being the most interesting of its series, a promise that was never fulfilled. In the first the South Downs were metamorphosed into foot hills of the Himalayas for the purpose of trying out new methods in frontier fighting. There was also the exhilaratingly original spectacle of Guardsmen turning themselves into guerrillas and applying Lawrence's axiom that for such warfare the normal principles of war should be inverted. One has long been convinced that a periodical course in guerrilla tactics might do much to develop the present rather drab standard of infantry tactics in the British army.

In the 2d Division exercise, General Rain's night attack forestalled a night attack by the ground force. This was the more unfortunate because the project of such a stroke was a refreshing change from the usual dawn attack and it would have been interesting to see, or at least to hear, its upsetting effect. The consistency of the British army is both its strength and its weakness. If we try a new thing as a surprise, we are apt in our delight to continue it as a custom—and so to strip it of surprise. Dawn attacks themselves were originally a means of taking the opponent off his guard. Now they have the popularity and publicity of a film star. And unwind themselves with the regularity of a film. Indeed, it is a real surprise, and relief, to the onlooker if any exercise does not work up to an attack at dawn.

Even more untimely was the fate of the final exercise on Salisbury Plain, for it seemed almost certain that here we should at last see the improvised Medium Armored Brigade used as a whole, and used in a way suitable to its qualities. Thus we might have enjoyed one positive example of the test which this year's chief innovation was devised to produce. Previously the tanks had been launched so regularly against prepared positions, in nullification of their mobility, that one might almost conclude that, like driven game, they were meant to be shot. If the idea was to produce a battle, it really produced a battue. And if they were not thrown against the strong front of an enemy position, direct along the all too certain line of expectation, they were reserved to throw at the opposing tanks, apparently on the subconscious theory—"Let the tanks kill each other, then we can get on with the war."

It was reserved for General Rain to punish these slips. And he allowed no chance of redemption. Through his intervention, the training season was shorn of the ultimately positive lessons in the art of generalship and in mechanised maneuver that it might have yielded. To the cultivation of generalship the loss was specially unfortunate, because each of these three schemes put a premium on unconventional methods and incited the commanders to elasticity of plan and execution. To the development of mechanisation, the abandonment of the last exercise, especially, means that we are left for 1930 to reflect chiefly on examples of how armored forces should not be used and the power of mobility abused.

Negative examples are not helpful to clear deductions. They impose a heavy demand on the imagination, and require the ability to distinguish between the main currents and the surface ripples. Observers are liable to let their judgment be deflected by minor details, and to focus on incidents produced by the artificial conditions of peace, whereas they should be trying to gauge the general trend in the light of real war conditions.

To do so is not easy when exercises have to be carried out on the government ground at Aldershot and on Salisbury Plain, areas absurdly narrow in comparison with even the present range of mechanised forces, and further cramped by wire fences and innumerable "out-of-bounds" patches. To see a battalion of tanks advancing in a long string over open downland because they were confined to the road by a few strands of wire was a ridiculous sight. It violated the essential nature of tank action, which on cross-country movement and wide frontages. Care for such restrictions is often carried to a pitch of both tactical and financial absurdity. One has seen tanks waiting to pass in turn through a gate, rather than break through a fence that would have cost a few shillings to repair. Yet, besides offering a bunched target and delaying their maneuver, they were consuming pounds' worth of petrol and oil meanwhile.

The Army at home has no training ground which offers scope for realistic test of, and practice for, the new mechanised forces. Perhaps the only remedy might be to move these mechanised forces to the vast

and sparsely populated areas of central Wales for an annual period of training.

The worst danger of the present limits is psychological. It lies in the difficulty of shaking off such artificial habits, and the cramped ideas they induce, when war comes.

In this connection there is an amusing story in General Spears' "Liaison", just published. On arrival near Mons, with the shadow of the German masses creeping perilously close, a message was received from the cavalry to ask if they were "justified in loopholing the walls of a farmhouse." Evidently they thought they were still at maneuvers.

In another place the author particularly remarks: "In war . . . the soldier is either too tired or has no time to think; he will only do what comes to him naturally and instinctively, through long usage." One fears that if war came much of the value of mechanised troops, and of the new mobility, would be forfeited through the shackles of peace-training habits. It is all too probable, also, that they would themselves be offered up as a mass sacrifice before their crews and the higher commander could acquire a new habit of applying mobility freely.

Moreover, another aspect of peace-time exercises deserves emphasis. Because this executive acts and umpiring decisions are made under artificial conditions, any deduction from them, especially in detail, is largely a matter of individual opinion, of guess work even. Thus it runs more risk of missing truth than does an analytical pursuit of general tendencies and effects. History attests this. Lessons learned from peace exercises have, indeed, far more often proved false than those of pure theory developed from logical reasoning and historical analysis.

It would be unfair, however, to argue that the past season's practice yielded no value. A number of points were certainly brought out by actual experience as they could not have been so well in any other way. One was the relative increase of mechanical endurance. This is the more significant because the machines have been growing older, and so inherently more liable to breakdown. The fact that increase of age has been accompanied by a decrease of casualties, despite an acceleration of marching pace, is a tribute to training. And it is a vindication of those who argued that it was unwise to base calculations on early performances, who prophesied that as commanders became more mechanically understanding, and their men more mechanically trained, standards would rise and difficulties grow less.

There was an illuminating illustration of this truth, and of the difference made by experience, in one exercise. A light tank company commanded by an officer who had enjoyed three years' experience in handling these machines attained a remarkably high average pace without incurring casualties, whereas another company under an officer who had just come fresh to the task suffered numerous casualties although moving at barely half the former's average. Of the general improvement there has been recently an even more striking example in Egypt, where five medium tanks travelled 130 miles across the desert from Cairo to Alexandria in 30 hours, and eventually, after taking part in exercises, returned to their base through a sandstorm that stopped all other forms of transport. They had covered 320 miles within a period of six days.

Among other mechanical impressions of the season has been that of a marked improvement in the work of the armored cars, and also of the remarkable influence they have sometimes exerted on the opposing command, an influence not perhaps consciously appreciated, yet none the less dominating. Another significant reflection concerns the visibility of the various arms. One often feels that it is a pity that practical tests of comparative visibility, both for means of movement and formations, are not carried out. A medium tank, for example, can be easily mistaken, particularly on a misty morning, for a clump of bushes. And on most types of ground the visibility of a Carden-Loyd light tank is much less than that of a man on a horse, and of several Carden-Loyds astonishingly less than that of several men on horseback. The former not only merge with the background more easily, but attract the eye less in movement. Unfortunately, by a peculiar absurdity, this asset was dissipated by decorating the tiny machines with red and white distinguishing signs of disproportionate size.

This "advertisement" at least helped to mitigate a danger to the infantry which was significantly emphasized this year by the attempts to protect the march of an infantry column with antitank guns. Against a mobile opponent their own peril might outweigh their value. For they can so easily be "netted" by light tanks or cavalry patrols—cavalrymen either horsed or mechanized. Such mobile adversaries may catch them unawares from a close-up fire position or, alternatively, dismount and stalk them on foot. Thereby an infantry force which relies on antitank guns to picket its march might be stripped of protection without becoming aware of its nakedness.

This consideration brings us to the question of cavalry, a question that is the more difficult because cavalry has become so mechanical with Austin reconnaissance cars, Carden-Loyds, and sixwheelers, that it might almost be termed a framework of steel with merely a filling of horse-flesh. Viewed logically, such an amalgam would seem to have the defects that a compromise always has in war. If old style cavalry has still a role, it should remain horsed; otherwise, it should be mechanically converted to war style cavalry. I imagine that those who are really convinced of the horsemen's value would prefer to stand on their own hoofs. Then at least they would be able to prove whether they could move and fight where mechanised troops could not.

But one finds more and more, that cavalrymen recognized that their fighting days are over; ended by their own excessive vulnerability to modern fire weapons. The argument for their retention seems to focus purely on their value in reconnaissance and on their short-range power to move over certain tracts

On Left, One of the New Mechanised 3.7-inch Howitzers. On Right, Mechanised Machine Gun Carrier and Trailer. The Gun Has Been Dismounted and is Firing from the Top of the Slope

of ground where vehicles are "stymied." In this case it seems that the most reasonable way of assessing the issue would be mathematically. The value of information depends first on its exactness and secondly on the quickness with which it is gained and got back. Which is quicker to travel nine and three-fourth miles on a horse and one-four mile on foot, or to travel nine and one-half miles in a swift machine and one-half mile on foot? The answer is unmistakeable, and the conclusion surely unanswerable. And it is well to remember that as the range of a reconnaissance increases, so does the advantage of the swifter moving means of transport—to the point where the final stage must be made on foot.

It is characteristic of human nature to shrink from pitiless logic, and characteristic also to cling to an old friend which may have an occasional value for an exceptional purpose. But even if we concede the fullest claim now made by enthusiasts for the horse, it is clear, indeed all the clearer, that we do not need large units of horsed cavalry, but merely a few score picked men in each division to furnish patrols.

The best excuse, though not a reasonable justification, for maintaining cavalry brigades is that they provide practice for leaders in applying mobility. A younger generation is likely to arise, bred up with mechanised vehicles, who will be imbued with mobility of thought and action. But at present it is unhappily obvious that few commanders have been able to shake off trench-warfare deliberation. Some commanders have a natural gift for mobility, or in their war service missed the danger of developing immobility. But, otherwise, cavalry-bred commanders seem the most free.

In this year's exercises realism was obscured, and the broader issues confused by misdirection of the "armored" strokes. One is not referring merely to the neglect of strategic objectives, such as communications and depots. This potential aim is certainly underrated, because British soldiers know too much about that rather overrated cavalry leader "Jeb" Stuart, and far too little about the effect achieved by Forrest and Morgan. The "romance" of Stonewall Jackson has blinded them to the deeper lessons of the campaign in the West, where Grant turned and Sherman decided the issue of the Civil War, and where the exiguous mobile forces of Forrest and Morgan went far closer than the main Confederate armies to frustrating their purpose.

Even so, mobile forces must often aid the general plan by closer action against tactical objectives. But these should be apt targets. Unfortunately, in peace exercises much unreality exists and false lessons are drawn because the administrative services, the second-line transport, and the various headquarters have such puny proportions compared with their war scale. They are peculiarly difficult to cover against the thrusts of armored mobility, but because they are small in peace exercises, they are difficult to strike and their assailants are rarely accorded full and real value for striking at them. Perhaps this is the reason why, instead of striking at the enemy's immediate rear, the armored units are still habitually aimed at a front which he has had time to prepare for antitank defense. An armored brigade should be given full latitude to avoid the enemy's antitank defenses. Its line of approach should be as indirect as possible—and mobility gives it a wide range of possibility. A blow at the enemy's headquarters, signal centers, transport lines, and supply columns, would be likely to paralyse all the combatant

The Largest Type of Medium Tank (16-ton) Going Through a Brick Wall. The Speed on Fairly Level Ground is 30 Miles Per Hour

troops that are dependent on those vital organs. In contrast, infantry disposed and dispursed for defense is a difficult target to hit—although in actual war it might not stand the sight of an oncoming swarm of modern high speed tanks.

Again, the habit of launching tanks, or keeping them to launch, at the enemy's tanks is an unconscious tribute to the power of armored fighting vehicles, a proof of the instinctive fear they increasingly develop in the minds of commanders. But is is not generalship. A general should employ his tools in the way that produces the maximum profit, not merely to cancel his opponent's assets.

Moreover, this direct use, and misuse, of tanks not only confuses the essential issues of today, but confuses the battle picture. Thus it confounds umpiring and makes peace exercises more than ever unrealistic. Mr. Rudyard Kipling was present at one of the exercises on Salisbury Plain, and the story is going round that he was asked his impression of modern war as there presented. He is said to have replied: "It smells like a garage, and looks like a circus." An apt and witty mot, and the circus element was certainly prominent on the "battlefield" as well as on the road. But it was due mainly to misguided choice of objectives, and the tendency to seek in unreal battle what could have been better attained by indirect paralysis.

Of course the misuse of tanks may be read as a tacit admission of their potency, a recognition that a battle without them is unthinkable, and that the other arms without them are powerless. It is a backhanded compliment. Because they are so few in proportion to the infantry, and yet so essential, they are called upon disproportionately. The infantry are often saved loss and exertion by their very immobility; the cavalry by their vulnerability, and because all soldiers are horse-lovers, and so, when in command, gauge generously the needs of the horse for rest and water. In contrast, and in paradox, the less they value machines the more do they commonly expect of them. This tendency entails not only undue wear and tear, but tactical waste. We have come to count on tanks out of all proportion to the number that we can count in our present organization.

Gropingly, yet definitely, the British army has taken a lead in mechanisation. By comparison with other armies its situation is favorable. By comparison, however, with the need, its state is not merely unsatisfying, but unready. All armies have made more progress in the past decade than in any previous decade of peace. Yet, relatively to the changed conditions, the change is less than it has ever been. And so is utterly inadequate. Armies as at present are not an insurance; they are a petition in bankruptcy.

Expressed mathematically, change in armies has usually moved at the same pace as change in the conditions of war, but several marches in rear. In the last decade the pace of armies has quickened to a run. But the pace of scientific and mechanical progress has been revolutionised, not merely accelerated. Thereby the armies of today are as helpless and their prospects as hopeless, as a portly policeman trying to catch a motorthief—the thief of time.

The consequences may be even more simply expressed. The armies of 1914 had over two months of grace before they lapsed into the stagnation of trench warfare. Nowadays the proportion of machine guns and other automatic firearms has increased enormously. No army has any scale of artillery approaching the proportion which in the later stages of the war could make a gradual advance possible by plastering whole areas with shells. The number of serviceable tanks is but a trifle of the infantry strength of any army. As the habit is still to use them for bolstering up the infantry, and so to throw them against the positions best furnished with counter means, the existing few would soon be used up.

It is thus a safe deduction, and prediction, that the armies of today would sink into trenches within a week—if they ever got to grips. For there is more than a possibility that these infantry bodies would be dispersed by air attack or hamstrung by the bombing of their transport while they were still groping forward.

Six years ago I produced a little book called "Paris, or the Future of War." Since then I have dwelt mainly on the immediate future of armies and on the ways of modernizing them. Some have assumed that this shortening of the horizon meant that "Paris" was merely a bomb to liberate thought, or an indulgence in extreme vision as a refreshing prelude to more practical concerns. On the contrary, the more one meditates on the increasing data provided by war history and peace exercises, the more sure do the original conclusions seem. They even sound less extreme than then, so marked has been the change in general military opinion.

This change owes as much to the cumulative effect on annual maneuver impressions as to the gradual surrender of prejudice to logic. Every effort has been

made to prop up the infantry, and to ensure them a rôle befitting their normal dignity as the principal arm. Yet their attempt to simulate virility has been no more convincing than that of the "principal boy" in a pantomime. They have been endowed with green and white flags to represent antitank guns and these most versatile weapons have been allowed to score a percentage of hits such as no weapon has ever approached under war conditions. They might well be christened the "Marksman's Dream." On the other hand, the tanks have been heavily handicapped by the narrowness and artificiality of maneuver areas, by their own fewness and obsolescence, and not least by the way commanders have employed them—too often to the negation of their mobility.

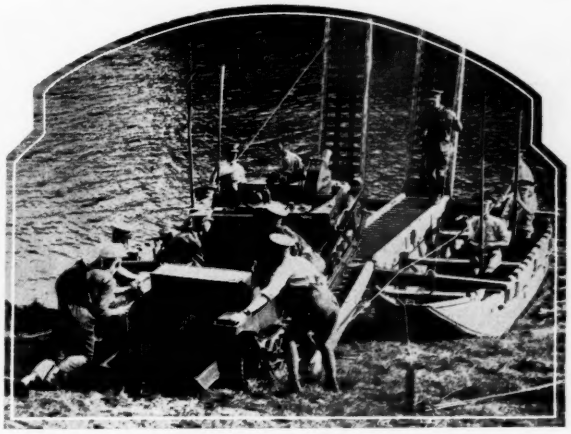
Yet infantry padding and tank slimming have alike failed to disguise the natural outlines of these trials. In exercise after exercise the tank forces, so slender compared with the infantry bulk, have dominated the situation. Dominated it more each year, and most of all this year.

It is not merely by their mobility, for this has been restricted, that their influence has been exerted, but their subtle moral effect. Any commander of a large infantry force who knows that the other side has a small armored force is subject to this. All his ideas and movements are governed by his concern as to its whereabouts and its latent menace. It cramps him at every turn, and he is compelled to take such care for his own security that his offensive purpose becomes a secondary and flickering impulse. It is often amusing to see those who have been most disparaging of mechanisation become most concerned when they have to command.

If the self-protective instinct become so predominant in peace, it is likely to spell paralysis in war. No commander will ever feel safe in executing a plan. If he is about to take the offensive, and hears of a hostile armored force in the offing, what will be the effect on his purpose? If he has actually begun an attack, will he continue it? Perhaps it would be not all loss if his resolution falters, for, as we have already pointed out, there is not the least ground for expecting that an infantry attack could succeed against a modern enemy in a position that he has had a few hours to prepare.

Thus the problem of today is not merely what tanks can do, but what mental and moral effect they can have. And here lies the ground for declaring that talk about "gradual mechanisation" is merely a soothing syrup, which though innocuous in itself, is indirectly perilous to administer to a grave case. The need for thorough conversion is urgent. And if anything could accentuate its urgency it is the knowledge of the vulnerability of all unarmored columns to air attack.

The significance and effect of the bombing attacks on bus columns was clear to any reflective mind. In many cases, such a mobile column would probably have remained as an immobile heap of wreckage, far behind the place where and time when it was wanted. Marching columns may be less easily blocked than bus columns, but are more easily dispersed—an equally powerful brake on effective advance. Only when using pure armored formations is this danger lessened.



One of the New British Mechanised 3-inch Stokes Mortars, With Trailer, Being Rafted Across a River

Otherwise, the commander's strategic plan may suffer a paralytic stroke.

Let us, however, for the sake of argument take up the most moderate ground, and concede the claims, whether logical or not, made for the preservation of the other arms. On this basis, and in the light of this year's exercises, let us put a simple question. If any commander who took part was offered a division comprising the usual three infantry brigades or one comprising one infantry brigade and one armored brigade —which would he choose? One cannot believe that even the most conservative general would still prefer the former if he had to bear the responsibility of command. And if this be the conclusion from Salisbury Plain and Aldershot, how much stronger would it be in a theatre of war where there were no red patches or inviolate fences to cover his flanks, and where he could not so easily gauge the whereabouts and approach of an enemy armored brigade?

Hence what justification is there for preserving even for a time the present infantry pattern of divisions? Once we have read the writing on the wall, it does not diminish the danger to remain gazing at the wall.

Only perhaps at one point can one detect a silver lining to the cloud that hangs overhead. It is in the cultivation of generalship. For the first time since the era of Waterloo, continental armies have their eyes on the British and are being influenced by its experimental lead. The pre-war army, splendidly efficient as it was in many ways, did not draw such a tribute.

While British pioneering work in mechanisation is generally realized, it may seem more surprising to refer thus to its generalship. I was greatly struck by the remark of an acute-minded foreign attache that its exercises contrast with those abroad in the scope they give for strategy—particularly in its original sense of "the art of the general." Relatively, this is true, even though one deplores the limitations of ground, the limitations of the administrative services which

are the bases of strategy, and the excessively tactical outlook of the manuals. But looking back, one can see how we have progressed. A few years ago most schemes dealt with forces which were acting "encadré"—fighting side by side in a series of narrow compartments. These reduced the commander to the level of a machine-tender instead of an artist.

This year nearly all schemes, whether they dealt with battalions or divisions, were devised to encourage free maneuver and strategic judgment. Superficially it may seem a paradox that mechanisation should be making war less mechanical. But its effect is perfectly natural. For by restoring mobility and fluidity it is breaking the shackles of trench warfare, the most mind-deadening form of war. The new freedom given by mechanical power of movement, combined with unmechanical schemes, must ultimately bear fruit, however depressing the uniform dead level of execution in many of this year's exercises.

Where there is scope for the art of war there is hope that this art will revive.

It is still a question of hope, rather than fulfillment. This year, as each year, one has seen the same familiar mistakes. One does not refer to, nor would one lay stress on, mistakes of execution. These are inevitable, and the critic should be charitable, if he appreciates the fog of war. But errors of conception are in a different category, especially where they come from a disregard of time-proved essentials. This year one has again seen commanders following a preconceived idea as rigidly as the commanders of 1914, with no attempt to give their plan and dispositions the elasticity which would allow them to be varied to meet the enemy's action. One has seen them neglect the chance of taking alternative objectives even when the scheme provided this essential chance of perplexing their opponent. One has seen them launch attacks which could have no possible hope of success even in the light of their limited information, lunging at the point where the opponent could surely parry.

Perhaps the most significant defect lies in the normal appreciation. Never does this seem to consider what course would be the least likely to be expected. "Soundness" is our bugbear, and our mental burden. It is well known that Moltke in 1870 jeopardized his success by giving his opponents credit for taking the sound course, the plan that he would himself have adopted in their position. Because the French were outrageously foolish, they badly upset his calculations. This might seem an argument for foolishness in a general, if it were not for the fact that, being foolish, they were unable to take advantage of his miscalculations. But one fears that in most present commanders Moltke would have found his ideal opponents. For he could have relied on them always to do the sound thing, so that they would have fitted perfectly into his plan—for their defeat.

In the nineteenth century a cloud spread over the armies of Europe and has lain over them since. Like a sound-proof curtain it shut out the still small voice of the old masters. Like a smoke-cloud it might have been patterned to spell the catchwords "Soundness" and "Uniformity." Inverting the order of nature, that cloud is the cause of the general depression which lies over Europe today. For the ruinous drain of the last war can be traced to the futility of armies which, since 1870, had become mechanical in mind without being sufficiently mechanical in form.

No wonder it is declared that another such war would mean the bankruptcy of Europe. If so, it would be due to the bankruptcy of intelligence. At present there are portents of recovery; hardly the promise, still less the achievement.

The National Guard Recruiting Problem

First Lieutenant Wilbur H. Rose, Infantry,

West Virginia National Guard Reserve

WITH no recruiting service to supply his needs and with no tree in the back yard from which he may pluck recruits as needed, the national guard unit commander has a problem all his own. It is to keep his organization above the minimum maintenance enlisted strength, and incidentally below that which may be ordered by regimental authority.

This work falls to the company commander and usually to one or two enlisted men who have established a record as good recruiters. Often these men are promoted to the noncommissioned officer staff on this basis instead of their ability as instructors or leaders.

With most organizations it is noticeable that recruiting is practically at a standstill for a few drills after the annual armory inspection and the field training period. This is desirable in some respects as it gives the company clerk a brief rest from opening service records and filling out enlistment papers. The supply sergeant also gets a rest which permits him to do work necessary after the field training period or the annual inspection. During this time no new equipment has to be issued to recruits, or any individual equipment taken in, as in most cases there are no men up for discharge.

These periods of "depression" usually last only about a month, and then recruiting picks up to normal again. For the field training period and the inspection, the organization has generally been recruited to full strength and "dead-heads" have been discharged. For a month or so after these events there are no losses; consequently no new men are needed.

Allowing a two-week vacation period at Christmas, two weeks for camp, one month after the inspection, and one month after the annual encampment, there is a nine-month period in which to secure recruits for the organization. The month prior to camp will usually take care of itself, as in this month news of the coming encampment is spreading and a few men will join the organization in order to make the trip. This leaves an eight-month period in which an effort will have to be made to secure new men.

There are almost as many plans and theories of recruiting as there are unit commanders. The national guard officer who leaves recruiting to chance and makes no effort to work the "lean" months will find himself on a three year "hump," with about fifteen or twenty men slated for discharge before the next drill night.

To eliminate this hump and to keep the company at the authorized strength requires, for the eight-month period of securing new men, that an average of one recruit must be secured on each drill night and one "dead-head" discharged.

Men who cannot attend drills because they have secured new employment, and those who have removed from the locality, should be discharged. Authority to discharge these men should be obtained between the first and the fifteenth of the month, so that the necessary papers may be filled out and transmitted through channels in time to avoid delaying the preparation of the monthly strength return (Form 100).

One good way to get recruits is to use the organization scheme; in which the platoon leaders assisted by their noncommissioned officers have charge of recruiting in their platoons. It has been the writer's experience that a large percentage of the men brought to a company are interested through the direct or indirect influence of noncommissioned officers.

In preparing articles for newspapers, mention the fact that there is a vacancy in the company and specify the nature of the vacancy, such as a scout in Corporal John J. Smith's squad, a cook in the headquarters platoon, an automatic rifleman in Corporal H. E. Brown's squad, or whatever opening may exist.

Prepare small slips of paper and give these to the enlisted men at the first formation on a drill night, with the request that they nominate an eligible young man or two and write the names on the paper. When these slips are collected at the close of the drill period, it will be found that several young men have each received a number of nominations.

From this group of slips, a list of eligible young men can be made and letters sent advising them of being honored and inviting them to call at the armory on the coming drill night. Before the next drill night junior officers and noncommissioned officers may visit these young men and talk with them about the value of national guard training.

An annual recruiting prize can be given to the enlisted man who secures the most recruits in a calendar year. An up to date notice of this contest should be kept posted on the bulletin board, giving the number of men secured by each individual.

A contest can be arranged between platoons, with the losing platoon to tender the winner a banquet. This type of contest will usually bring quick results, but care must be taken to cull out the undesirables and refuse them enlistment. Any additional men secured through this method may be placed on a waiting list and taken into the company as vacancies occur.

Holidays such as Memorial Day, the Fourth of July, or Armistice Day, when the organization makes a public appearance, are favorable for getting new men. The appearance of the unit on the street will attract indi-

viduals to the armory, where the value of army training and the advantages of membership in the Guard, can be explained to them.

Sections of a city or a suburb may be worked from time to time. For a year or so a selected territory may produce a good quality of men and then lose its value as a section from which to draw recruits. When drawing from such a locality, it is best to work the territory thoroughly and get as many recruits as possible. When that district proves unfruitful, abandon it and open up a new section, giving the worked out place a rest until a new group of young men grows up.

Cooperation with the county chairman of the Citizens Military Training Camp, Association will gain his good will and possible assistance. It is recorded that, on the return of a group of C. M. T. C. trainees, one company commander met them at the train and on that evening had a dinner for them at the armory. Before the affair was over, the entire group had enlisted in the Guard. Parents of the boys and city officials were in attendance at the dinner.[1]

High school boys who are of age make good guardsmen, as they attend drill very faithfully. Basketball or baseball activities will help to attract these young men to the armory. Once the leaders of this group have been enlisted, it is not difficult to get a representative selection from the school.

Cooperating with Boy Scout officials has been known to secure recruits. While this source is not as fruitful as others, the quality of enlisted men from it is usually high, and scout trained youths as a rule develop into excellent noncommissioned officers.

A "stunt" that attracted public attention and which resulted in a known gain of three men was consummated through cooperation with the advertising manager of the local theatre. A war picture was on the program and at the entrance of the theatre an attractive display of Guard equipment was made, along with advertising posters and pictures concerning the entertainment for the evening.

The company, under arms, met the train and escorted the film to the theatre. As a prologue to the picture a squad of riflemen demonstrated the manual

A Display to Attract Recruits

of arms, the company bugler blew several service calls, and the company commander explained what they mean. The members of the unit were guests of the theatre, and needless to say the house was "sold out."

Each national guard company has to meet different conditions, but in the long run the same general type of individuals make up the National Guard whether it be on the Atlantic or the Pacific Coast. A recruiting plan that would show results in one city might be a total failure in another, yet a careful study of the situation will suggest a plan, and possibly one or more of the methods given herein will prove of value.

[1]The national guard authorities of one state publish in the state national guard magazine lists of R. O. T. C. graduates, with address and arm, grade and specialty for which qualified.—Ed.

Current Events Overseas

Edited by Lieut. Col. Herman Beukema, Professor, U. S. Military Academy

IN THE annual crop of critical surveys covering a dismal 1930, commentators agree on two points: first, that this world has so far deflated the extravagant hopes entertained as late as August, 1929, that the year ahead of us is almost certain to be one of improvement; secondly, the world condition of political and economic flux, proceeding from the events of 1914, shows no prospect of early crystallization. In short, stability is still remote.

Among the constructive steps during 1930, looking toward maintenance of world peace and economic stability, we note in chief, the London Naval Conference, the preparations for a World Arms Parley in 1932, the inauguration of the Young Plan, the highly auspicious initial success of the International Bank, recession of the revolutionary fever in China, and various world-wide agreements to curb overproduction of commodities. Revolutions, poverty, disillusionment, the reverse side of the picture—make up the present cosmic headache. Where the basic causes of these troubles are economic, remedies are now being applied or are in preparation. The political causes, notably the refusal of Italy and the defeated Central Powers to accept the decisions of the Versailles Treaty, offer the more serious threats of another world convulsion. History will check the balance and determine whether 1930 marks advance or retrogression in the march of civilization. It is too early for that now. But we can observe the trend of major movements as 1931 opens, and the questions they pose.

Above all, what of Russia? Unsocial, unwilling to cooperate with the capitalistic powers, happy in fact over the disruptive effects of their productive efforts on world economic machinery, these hard-bitten communists are forcing every nation to ask itself "What if the Russian program succeeds?" The elimination of Rykov and his followers, perfecting at last the dictatorship of the proletariat (with Stalin in the single role of "proletariat" in this instance), and the launching of a program to give military training by 1935 to 23,000,000 men annually, give ample proof that Russian leadership will carry through its iron purpose with all the means at its command. For the problems which he presents to rival powers, Stalin blandly proposes two solutions, war or adoption of communism. It may be too early to think seriously of these, but it is not too early to think.

British Empire

United Kingdom. Labor's hold on power weakened further in the past month, as evidenced by its several compromises in the session which recessed December 19. With the left wing radicals refusing to follow MacDonald's leadership, Labor is now wholly dependent on liberal support to remain in office. Out of that situation the Liberals feel certain of the early passage of a law granting proportional representation, a measure which should more than double the present strength in Commons.

No party wants a general election now, least of all Labor, even though it carries the brunt of criticism for these dolorous days in Britain. And Labor must pay the Liberals for the support which postpones that election. Meanwhile, the tide of local and by-elections swings steadily toward the Conservatives.

Sir Oswald Mosley has created a new issue in his demand for a temporary suspension of normal representative government by placing plenary powers in the hands of a super-cabinet of five. Parliaments cannot pull Britain out of her doldrums, according to Mosley, and, unwilling to suggest dictatorship, he still feels that a modified oligarchy may combine the courage, efficiency, and readiness to open again the doors of national prosperity. The country's initial reaction consisted chiefly of invective. But now industrialists and leading Conservatives rally to his support.

In the military field, a development of interest is the reduction of recruiting standards for the crack infantry and cavalry regiments, after it had become clear that no other measure could hold these units to strength. A logical aftermath of the R-101 disaster is a growing demand for a return of military, naval, and commercial air matters to separate administration, and an end of the present Air Ministry.

India. Due largely to the secrecy of the Round Table Conference's deliberations, the exact state of its progress is obscure. Winston Churchill's blistering denunciation of the proceedings gave evidence that results must be satisfactory to Labor and to the Indian representatives. It grows clear that the British government will insist on retaining control for at least ten years of matters of defense, foreign relations, and finance. A difficult problem arises from the inability to determine thus far a satisfactory basis of Hindu and Moslem representation. Only by some proportional method can the Moslems secure representation worth having. Succeeding Lord Irwin, Viscount Willingdon, present governor general of Canada, has been designated Viceroy.

Burma's demand for separation from the new Indian government was acceptable to both the British and the Indians. Scarcely had that step been decided upon when "King Golden Crow," or Saya San, a native backwoods chieftain, started on a campaign of pillage and slaughter which wiped out local and colonial administration over several hundred square miles in the initial onset. A surprise attack on January 2 by col-

onial troops resulted in the capture of Saya San's stronghold and the death of that leader.

The Dominions. Economic crises in Australia and Canada, with a somewhat similar set of conditions in each case, have produced unpleasant threats of separation from the western, commodity-producing areas. In neither case has the situation proceeded beyond the point of verbal explosions. Canada's position, from all points of view, is the happier in that her fiscal position is sound. Australia has followed a spendthrift socialistic policy so long that national bankruptcy is at the door, and may be avoided only if the government is supported in its policy of retrenchment.

Meanwhile, no little hard feeling has developed between Britain and Australia out of the blunt nomination by Premier Scullin of Sir Isaac Isaacs, native Australian, for governor general of that dominion. King George accepted the choice with marked asperity.

Robert B. Ransom,
Captain, Infantry.

Western Europe

League of Nations. Budgetary limitation of armaments won in December the final acceptance forecast by its November victories in the parley of the League Preparatory Disarmament Commission. Ambassador Gibson, representing the United States, fought the thesis to the end, crystallizing his objections in the statement, "We honestly believe that it is far easier to conceal the application of a dollar than the existence of a rifle."

The completion of a draft proposal for the World Conference on Disarmament, which is expected to meet in 1932, marks the end of four years of intermittent effort to that end. No European power has labored harder to secure prompt and sweeping action toward this goal than has Germany. Only by scaling down the defenses of her rivals can she hope for an early approximation of parity in armaments. However, the strenuous efforts of Count Bernstorff, German delegate, to secure a date in 1931 for the final conference, was roared down by Lord Cecil, speaking for Great Britain, and voicing the majority sentiment of the concert.

To an impartial observer it appears that the Disarmament Conference might well take a lesson in cooperation from the success of the Bank for international Settlements, which has released its report on its first half year's operations. It has apparently operated much more smoothly than the Disarmament Conference. Originally, formed for the ostensible purpose of collecting and distributing German reparation payments, this now constitutes less than 20 per cent of the bank's business. Although it may not deal in a foreign currency if the central bank of the country concerned offers an objection, more than twenty transactions in foreign exchanges have been consummated without a single protest. Predictions are already being made in international banking circles that eventually the Bank for International Settlements will solve the question of world gold shortage by acting as a depositary for the gold reserves of the central banks.

France. The overthrow of a French cabinet is ordinarily a matter of small moment in that country. Such was the case when Tardieu's second cabinet fell December 4, after an adverse vote in the Senate. Notwithstanding the small weight of that body in the French political system and the existence of a solid majority for his policies in the chamber of deputies, Tardieu chose to resign. Two premiers designate, Louis Barthou and Pierre Laval, proved unable to form a ministry. President Doumergue finally turned to Theodore Steeg, who appeared before the Chamber with a left ministry just before the holidays, and secured a vote of confidence by a majority of seven. Steeg's cabinet remains obviously as a stop-gap, until Tardieu is ready to take the reigns again. Widespread agitation in the past two months for the return of Poincare to active politics ended when the serious illness of that veteran reinforced his refusals.

The death of Marshal Joffre on January 4, after an illness of three weeks, produced a flood of condolences from every quarter of the globe, in which his country's former enemies give full evidence of not only respect, but even affection. None of the great figures of 1914 had a stronger hold on men's feelings than did this gentle, imperturbable soldier who could fight to victory when his whole world was falling about him.

A military development of interest occurred in French laboratories with the production of a new smoke agent in which the principal ingredients are chalk, sulphuric acid, and tar products. Early tests were highly successful.

Spain. The long-heralded revolt burst out in a manner both furious and futile with a series of explosions, from the little Pyrenees garrison town of Jaca to Madrid. The Jaca affair with its proclamation of a Republic December 13, was obviously premature. It proved of real service to the government, which promptly forestalled most of the other scheduled outbursts. The extraordinary mutiny at Cuatro Vientos, Madrid's great military airport, December 15, was the only additional incident of importance. In all cases these sporadic outbreaks were put down with a promptness and thoroughness which suggested nothing of temporizing. The loyalty of most of the regular army, the happy warning given by the Jaca revolt, the indifference of the populace to republicanism, especially so in the case of the peasantry, and above all the native ineptitude of the Spanish for concerted action, were responsible for the failure of the rebellion. However, King Alfonso XIII has promised early restoration of constitutional government, with elections in March.

Donald A. Fay,
First Lieutenant, Infantry.

Central and Southern Europe

Germany. Socialist support enabled the Breuning ministry to score a major victory at the very outset of the session which opened December 3. True to his promise, Chancellor Breuning placed before the new Reichstag, the issue of complete acceptance or rejection of his fiscal measures, which had precipitated the

political crisis last July. Piece meal debate of the twenty-five major reforms involved was avoided through the previous enactment of the bill by decree, under Article 48 of the constitution. Some of the provisions were most unpalatable to the Socialists, but they had to choose between acceptance or a reversion to the political chaos of recent months, with fascist control a strong possibility. Their grumbling support enabled the government to win in this critical test by a vote of 292 to 254.

However, the government remains weak. Fascists, Nationalists, and Communists will stand solidly against it on every vote. Only by constant compromise of party principles can the moderate parties of the center maintain a majority. And compromise is something new in German politics.

Government and general opinion grows increasingly cool to suggestions of a moratorium on reparation payments. German commercial credit would suffer from further agitation of the question, and that at a time when a substantial and growing balance of exports is one of the few bright spots in German economy. With unemployment figures nearing the four million mark, government revenue receipts falling steadily, and serious communist strikes and riots breaking out in the Ruhr district with the opening of the New Year, Germany faces its hardest winter since 1923.

Italy. Military training approaches Mussolini's goal of 100 per cent application in two decree laws issued by the Council of Ministers. The more important of these provides that youths over 18 are to receive two courses in pre-military training, unless physically disabled or residing more than ten kilometers from the nearest training center. Local fascist militia takes charge of instruction, which will be given on Sundays and holidays.

Mussolinic oratory of last month was marked by a singular outburst in which Il Duce, admitting a budgetary deficit of $45,000,000 to date, placed the blame for the Italian, European, and world economic plights on Wall Street's shoulders. He waxed bitter in his denial that Italy had sought loans in the world markets, attempting thereby to dispose of current news to the effect that the refusal of such loans had clipped his aggressive claws.

Drastic retrenchment in state expenditures appears in recent decrees. Salary cuts of 12 to 30 per cent for government employees, reduction in outlays for all executive departments, are among the measures taken to meet the financial pinch. At best, they are insufficient.

RICHARD P. OVENSHINE,
First Lieutenant, Infantry.

Eastern Europe

Russia. The Moscow trial of technicians for sabotage attained the ultimate in publicity. Radio carried the proceedings to every corner of the world willing to tune in. A cinema record, will shortly present the high lights of the "confessions" and of State Prosecutor Krylenko's thunder. And hungry, shivering Russia gets momentary diversion from its misery. The sabotage carried on by the prisoners, at the instance of Russia's foreign enemies if we are to believe the "confessions," received the expected heavy penalties, ranging from death to long terms in prison. And, as also expected, those sentences were commuted and reduced, eliminating all death penalties.

Stalin has achieved the pinnacle of complete dictatorship by elimination of Alexis I. Rykov, premier since Lenin's death. Viacheslav M. Molotoff, one of Stalin's subservient tools, gets the vacant post, while the "man of steel" himself finally takes an office, ordinary membership on the Council of Labor and Defense. Of all the coterie who held key positions under Lenin, less than twenty per cent remain today, and those in minor positions. The furious pace of the five-year plan, and the savage disregard of the nation's simplest needs shown by its pilots in the pursuit of their ends, appears in new decrees, limiting maximum temperatures in all buildings this winter to 48 degrees Fahrenheit; eliminating the individual kitchen and substituting mass feeding, with the additional proviso that only those "accredited" by the State will eat at all; and drafting 2,000,000 women for heavy masculine tasks to supplement the inadequate labor supply.

Poland. Marshal Pilsudski, the Polish dictator, has resigned as premier and has accepted the position as minister of war in the new cabinet. Colonel Walery Slawek, a strong Pilsudski aide, has been appointed to the office of prime minister. It is evident that the old Marshal will continue to control the affairs of state from behind the scenes.

A reverberation of the recent Polish elections appears in startling disclosures of brutal treatment suffered by leading Poles who, opposing Pilsudski candidates in the November elections, were thrust into the Brest-Litovsk prison some weeks before the election day. Meanwhile, Germany appeals to the League of Nations, protesting against Polish methods employed against native Germans in Upper-Silesia for the same object, to secure the election of Pilsudski's candidates.

GEORGE M. BADGER,
First Lieutenant, Coast Artillery.

The Balkans and the Near East

Balkans. An interesting project, inaugurated in 1930, is the formation by Albania, Bulgaria, Greece, Jugoslavia, and Turkey of the Balkan Union. It means an attempt at real cooperation among these states, along the lines envisaged by Briand for the whole of Europe. There are to be a diet which meets annually (this year in Constantinople), a postal union which goes into effect on April 1, a trade council, and a Union flag.

Turkey. Last month witnessed the fall of the three-months old party system in Turkey. In August Fethi Bey undertook, with the approval of President Kemal Pasha, to organize a Liberal party in opposition to the government Popular party, whose leader was Prime Minister Ismet Pasha and whose President was Kemal. It was expected by observers that the Ghazi would

divorce himself from the Popular party, and, as the republic's president, preserve a benevolent neutrality in the intra-party squabbles. This, however, he failed to do. On the other hand, Fethi Bey's strong denunciations of existing governmental policies soon produced him great support from the discontented. During the liberal leader's first political speech in Smyrna, serious disorders broke out. Kemal may have approved an opposition party, but not of opposition. He "gave commands" and all the smiles of the Liberal party, like those of Browning's "Last Duchess," stopped together. Fethi Bey, shunning martyrdom, hastily announced the dissolution of the party.

Financial embarrassment grows acute for the Turkish government, with the failure to meet the latest interest payment due on her foreign obligations, and she is now sounding out London and Paris on a proposition of a charitable reduction of the principal.

Rumania. The death of ex-Prime minister Vintila Bratianu, December 22, disposes of King Carol's most active foe. The dead man is not to be confused with his brother, the potent Ion Bratianu, who died in 1927. Vintila was toppled from power by a peasant revolt in 1928, but until his death maintained his leadership of the Liberal party and opposed the return of Carol to power.

DONALD H. GALLOWAY,
First Lieutenant, Cavalry.

Far East

The winter months have witnessed a cessation of major warfare and a continuation of political and economic difficulties in China. However, the communists or bandits still hold sway in the Upper Yangtse Valley. Frequent reports appear to the effect that President Chiang Kai-Shek is assembling a large army to eliminate them, but kidnappings, attacks on foreign vessels, and massacres of villagers continue. A more serious report concerns the revolt of Mohammedans in Kausu Province of far west China, involving destruction of many villages and the murder of some 30,000 Chinese.

Plans for railroad construction, and the new Chinese tariffs dominate the economic field at present. Information appears that Mukden and Nanking have agreed to permit the Nationalists government to construct two lines paralleling the South Manchuria Railway. Japan, foreseeing ruinous competition for the South Manchuria, which is her property, insists that the new construction is a first step of the Nationalists in their attempt to oust Japan from Manchuria. At most, the construction plan is in the talking stage.

Over the vigorous and unavailing protests of all foreign governments, Nanking has established a well-conceived tariff schedule, designed to foster Chinese industry as well as to raise revenue. Wines, liquors, cigarettes, and in general all luxuries are hit hard, making certain a substantial boost in the cost of living of resident foreigners. Necessities, and especially raw materials required by Chinese industry, bear little or no increase in rates, and in some cases are reduced. A partially compensatory measure is the abolition of the age-old "likin," internal transit tax. Manchuria, however will retain "likin" for another three to six months.

ROBERT E. BLAIR,
First Lieutenant, Infantry.

SPORTS

The Army Polo Team in Argentina

By Colonel W. V. Morris, G. S. (Cav)

THE recent visit of an Army Polo Team to Argentina is of special interest by reason of the fact that it was the first foreign polo team to visit that country and the first polo team from North America or Europe to visit any South American Country.

The Army Polo Team for this year was assembled at the Army Polo Center, Mitchel Field, Long Island, for participation in the Junior Championship matches. It consisted of Captain C. A. Wilkinson, QMC (Cav.), Captain P. P. Rodes, 16th Field Artillery, 1st Lieut. M. McD. Jones, Cavalry, and 1st Lieut. H. W. Kiefer, Field Artillery. Its winning of the 1930 Junior Championship is a matter of polo history.

Early in July an invitation from the Argentine Polo Association was received by the United States Polo Association for the visit of an Army Polo Team to Argentina. After approval by the War Department the invitation was accepted. With a view to strengthening the team Major C. C. Smith, 14th Cavalry, was added to it as back.

The team, with Lieut. H. W. Kiefer as substitute and Colonel W. V. Morris in charge, sailed from New York September 12th. Horse equipment was taken, but no mounts, as the arrangement with the Argentine Polo Association provided for ponies to be furnished by them.

On arrival at Rio de Janeiro, Brazil, on September 25th, the party was met by Captain E. C. Fleming, Military Attache at Buenos Aires, who had come to Rio for that purpose, and by members of our Naval Mission to Brazil. A very enjoyable day was spent including a trip to the top of the celebrated Sugar Loaf by aerial cable car, and a visit to the Polo and Golf Club.

Arriving the next morning at Santos, the great coffee port, the party motored about 50 miles over a most picturesque route, resembling the Baguio road in its steep and long ascent, to Sao Paulo, the headquarters of the coffee industry of Brazil, and a finely built, enterprising city of 585,000 people. Sao Paulo resembles a North American city more than any other of those we visited in South America. While Rio is the political capital, Sao Paulo is the economic and financial center of Brazil.

We returned to Santos over a railroad (partially cable) that is a marvel of engineering skill, most of a drop of 3,000 feet being made within six miles, and reputed to be the best equipped and most profitable railroad in the world.

After a short stop at Montevideo we arrived at Buenos Aires, September 30th, where the party was met by a reception committee consisting of officials of the Polo Association, officers from the Ministry of War and the Cavalry School, and many others, some forty-in all.

On October 3rd the Team visited the Los Nanduces Polo Club, about thirty kilometers from the city, which was to be its polo headquarters for the first month of its stay. Here it was received by the officials of the Club and after a luncheon attended by forty-five polo enthusiasts all proceeded to the stables to inspect 48 polo ponies with their Gaucho attendants.

The ponies, which were in charge of Mr. Ernest Grant, a fine horseman and trainer, were made available through the generosity of some twenty-three Argentine sportsmen and polo players who were kind enough to place them at our disposal. On the day of our visit a practice game resulting in a score of 12 to 3 in our favor was played against a cut-in team of 14 to 15 goals handicap.

While the Club had provided comfortable sleeping accommodations for six, with a very good mess, a number of considerations, especially the many functions given for us in the City, made it desirable for members of the team to habitually live in Buenos Aires and go to Los Nanduces by automobile or train for practice games and working ponies.

While the visit of Argentine polo teams to the United States had made us acquainted with the quality of polo played there, the extent to which the game was played was not realized. It was a surprise to learn that there are fifty-four active polo clubs in the country, and the interest in polo is increasing every year. It is also not generally known that polo was introduced into Argentina in 1875, one year before it was introduced into this country.

Practice games were played on October 7th, 9th, 11th, 16th, 18th, 21st and 27th. These games were against various neighboring clubs with teams of handicaps varying from 11 to 20 goals; we won all of these preliminary games.

Throughout our practice games the team labored under the disadvantage of having no high goal teams against which to play. This was due to the attendance of all the strong teams at the tournaments at Hurlingham, the big Polo and Country Club of Argentina. Our team was not entered in any of these tournaments and it is perhaps just as well, for the ponies were not ready for tournament polo, many of them being in need of considerable conditioning. For this reason the practice games against low goal teams was also probably a good thing.

On October 28th the ponies were brought into Buenos Aires by road and lodged at the stables of the Live Stock Association, in readiness for the beginning of the Open Championship on November 1st.

During this month's practice and conditioning of

ponies the members of the party were well occupied with many official and social functions, Ambassador and Mrs. Robert Woods Bliss taking the lead in this respect with a luncheon in our honor on October 1st.

Upon our arrival we had been informed that the principal clubs in the city, about eighteen, and a number of polo clubs, had either made us honorary members or had extended privileges for the duration of our stay. Soon after our arrival the team was received by Lieut. General Jose Francisco Uriburu, the President of the Republic, and by Major General Francisco Medina, the Minister of War.

Oustanding among the many semi-official and social functions attended were a luncheon by the Minister of War, a banquet given by the Circulo Militar and attended by about 100 officers and civilians, an outdoor luncheon by the Los Indios Polo Club to about 65 guests, on which occasion a club membership medal was presented to each member of the team, a reception and tea dance by Ambassador and Mrs. Bliss at the American Club, a dinner dance by the American Club, and a polo dinner at the Hurlingham Club.

On October 12th the party was privileged to witness from the official stand a parade through the streets of Buenos Aires of about 12,000 troops, including the cadets of the Military and Naval Colleges, in honor of El Dia de la Raza (The Day of the Race). It was an interesting demonstration of well uniformed and equipped and excellently marching soldiers of all arms. At night the members of the party were guests of the Minister of War at a gala opera performance at the Teatro Colon.

The visit to the Military College on October 30th was also an interesting occasion. After a luncheon attended by about 85, the entire afternoon was devoted to a tour of the college under the guidance of Colonel Francisco Reynolds, the Commandant, and witnessing special exercises held in honor of the party, culminating in the ceremonies of "Escort of the Color" and "Evening Parade."

Going back to polo, the teams entered in the Open Championship were as follows:

Santa Ines		Los Pinguinos	
1 Daniel Kearney	6	1 Oscar Braun Menendez	3
2 Andres Gaznotti	5	2 Alejandro Braun Menendez	4
3 Fermin Ramos	4	3 Carlos Braun Menendez	5
4 Juan Kearney	5	4 E. Braun Menendez	4
	20		16

Hurlingham		Venado Tuerto	
1 Luis T. Nelson	5	1 Tomas Moore	4
2 Luis Duggan	4	2 Roberto H. Lambert	4
3 Leonardo Lacey	4	3 Arturo Kenny	6
4 Luis L. Lacey	10	4 Diego Cavanagh	6
	23		20

Las Rosas		Santa Paula	
1 Juan B. Miles	8	1 Alfredo Harrington	6
2 Mauricio Kenny	4	2 Juan C. Reynal	6
3 David B. Miles	7	3 Jose Reynal	8
4 Carlos N. Land	6	4 Manuel Andrada	8
	25		28

Los Indios		Hurlingham B.	
1 Damaso Del Gampo	4	1 Alfredo Benitz	4
2 Audilio Bonadeo Ayrolo	4	2 Luis T. Nelson	5
3 Jose Luis Giribone	4	3 Carlos Uranga	4
4 Juan Carlos Giribone	4	4 Vicente Kenny	4
	16		17

U. S. Army	
1 Lt. Morton McD. Jones	5
2 Capt. C. A. Wilkinson	5
3 Capt. Peter P. Rodes	6
4 Major Charles C. Smith	5
	21

The results of the various games are given below:

Nov. 1—U. S. Army won from Los Pinguinos 13—5.
Nov. 2—Santa Paula won from Venado Tuerto 19—7.
Nov. 3—Hurlingham B won from Los Indios 9—8.
Nov. 3—Santa Ines won from Hurlingham A, Default.
Nov. 7—Las Rosas won from Hurlingham B 17—2.
Nov. 8—Santa Paula won from Santa Ines 8—5.
Nov. 9—U. S. Army won from Las Rosas 8—4.
Nov. 11—Santa Paula won from U. S. Army 9—8.

These games were played on the Military polo fields in the Palermo District of Buenos Aires and opposite the celebrated Hippodrome of the Jockey Club. The fields were excellent. Games in Argentina are of seven periods of 8 minutes each.

The Pinguinos Team against which we played in our first game, November 1st, is composed of four brothers, with three other polo playing brothers available as substitutes. One of them, Armando Braun Menendez, went in when Alejandro was painfully injured in the third period by his horse's falling and rolling on him. This team was regarded as being about as well mounted as any in the tournament and as its rating was 16 goals, the score of 13 to 5 in our favor was very satisfactory.

Our second game which we won 8 to 4 against Los Rosas, a 25 goal team, with three players of international reputation, was remarkable in that our opponents earned but one goal, three of the four having been made from free shots from the 40 yard line as penalties for fouls called against members of our team.

The final of the Open Championship was played against Santa Paulo, a 28 goal team, on November 11th, and was won by the latter by a score of 9 to 8. This is the same team that visited California last winter and departed with a clean score of victories.

In the fifth period the score was 8 to 3 in our favor but three free shots from the 40 yard line in the next two and a fraction periods, added to three earned goals without our scoring enabled Santa Paula to win.

President Uriburu attended this game and Mrs. Robert Woods Bliss presented the trophies.

For the series of games with a team representing the Argentine Army, Ambassador Robert Woods Bliss offered a very handsome cup as a permanent trophy to be contested for each year or as often as possible by teams representing the United States and the Argentine Armies.

Following the Open Championship our first match against the Argentine Army Team, which we won by

a score of 10 to 7, was played November 15th. The line up of the Argentine team was as follows:

No. 1—Sub. Lt. Matias Casares	3
2—Capt. Juan Carlos Balbastro	3
3—1st Lt. Pedro Cremona	4
Back—1st Lt. Manuel G. Molinuevo	5
	15

In the 6th period, Captain Balbastro suffered a fractured hand as a result of a blow by a mallet and had to withdraw, his place being taken by 1st Lieut. Alberto Paz.

On the morning of November 18th the party attended the graduating exercises at the Military College and in the afternoon played the final of the Military Matches which we won by a score of 16 to 1. Our team struck its stride at once and dominated the play from start to finish. Its hitting, passing and team play were excellent.

The trophy and individual cups were presented by President Uriburu.

In these military matches, as in the others, the best of feeling existed between the two rival teams on and off the field. The Military Matches in this respect were somewhat like a match between two squadrons of the same regiment, and the rival players almost walked off arm in arm.

The attendance at all games in which our Army team took part was exceptionally large—from 10,000 to 12,000. Ambassador and Mrs. Robert Woods Bliss attended all of our games as also did General Medina, the Minister of War. The President of the Republic attended the final game of the Open Championship and both of the Military Matches.

On the night of November 18th after the last Military Match the Polo Association gave its annual Polo Dinner to about 100 guests and at which the members of our team were guests of honor. This was a very enjoyable occasion.

On November 21st we gave a banquet to about 100 guests. Unfortunately Ambassador Bliss was unable to attend on account of a previous engagement. The Minister of War was the guest of honor.

Lieut. Kiefer having left on November 9th and Major Smith and Captain Rodes on November 21st, the balance of the party left Buenos Aires on November 23rd by train, crossing the Argentine Pampas and the Andes to Santiago, Chile, where we were most hospitably received by the Army and officials of the Chilean Polo Association. An enjoyable two days was spent at Santiago and Vina del Mar including visits to two Cavalry regiments and one Field Artillery regiment, and a dinner at the Cavalry School. The party sailed from Valparaiso on November 26th, regretting that more time could not be spent with our Chilean friends.

From the arrival of the Team in Buenos Aires until its departure nearly two months later, everyone, including the President of the Republic and members of the Government, appeared to be actuated by the desire to make our visit as pleasant and agreeable as possible. Through our close association with officers of the Army and those interested in polo, many valued friendships were made and it was with much regret that we said farewell to the hospitable people of Argentina.

The attitude of the President of the Republic, Lieut. General Jose Francisco Uriburu was most cordial. His interest was shown by his attendance at as many of our games as his official duties would permit. His example was followed by various members of his cabinet.

Mr. Francisco Ceballos, President, and the other officials of the Argentine Polo Association were at all times solicitous for our comfort and did everything in their power to comply with our wishes regarding mounts, play, etc.

We are especially indebted to Dr. Ricardo Fisch, President, and the other officials of Los Nanduces Polo Club for their generosity in placing the facilities of their Club at the disposal of the Team as its polo headquarters.

In the interests of international understanding and friendship it is hoped that arrangements can be made for an interchange of visits by Army Polo Teams between Argentina and the United States as contemplated by Ambassador Robert Woods Bliss in his offering of a permanent trophy.

Results at Toronto Horse Show—a Correction

DUE to a misunderstanding of the classification of events in the Royal Winter Horse Show at Toronto, the JOURNAL (January issue) listed but four of the events there as International Classes. The events so listed were understood to have been those limited to teams or individuals of teams of the various nations officially represented at the show. Major R. S. Timmis, Royal Canadian Dragoons, calls to our attention the omission of three military events at the Toronto show, which should be considered as International Military Events, in which representatives of the international teams competed. These were: Class 122, Military Performance Class won by Canada, *Bucephalus,* Major Timmis; Class 119 "Royal York" Military Jumping Stake, won by Germany, *Elan,* Lieutenant Hasse; Class 118, Military Touch and Out Stake, won by Hungary, *Ibolya,* Colonel Malanotte.

There were other classes open to members of the international teams, which are classed therefore as "international," though not military events. Such were Class 116, Knock Down and Out, won by America; Class 107, Pair Jumping, won by Ireland, and Class 115, Open Jumping, won by Germany.

The JOURNAL is very glad to correct the listing as previously given and thanks Major Timmis for calling attention to the proper classification of the events in the Toronto show.

Horse Show Dates for 1931 Announced

AT THE annual meeting of the Association of American Horse Shows, Inc., held in New York January 6, 1931, the schedule of horse shows for the year 1931 was approved. The dates assigned the various shows are listed below. The dates for the shows of certain recognized members of the association will be assigned at a later date.

Horse Show Dates, 1931

Jan. 31st, Feb. 7th—Oakland National, Calif.
April 7th—The Riding Club, New York City.
April 21st-25th—Brooklyn Horse Show.
April 29th, May 1st—Essex Troop Horse Show (Newark.)
May 6th-9th—Philadelphia Indoor Horse Show.
May 6th-9th—Hartford Cavalry Horse Show (Conn.)
May 9th—Front Royal Remount Depot Horse Show (Va.)
May 9th—Soldiers and Sailors Club (Long Island.)
May 13th-16th—National Capitol Horse Show.
May 14th-16th—New Haven Horse Show Assn. (Conn.)
May 16th—Lawridge Horse Show, Porchester, N. Y.
May 16th—Meadow Lark Horse Show, Stelton, N. J.
May 19th-23rd—Worthington Valley Horse Show.
May 21st-23rd—Atlanta Horse Show.
May 22nd-23rd—Reading Country Club Horse Show. (Penna.)
May 23rd—Millburn Horse Show. (New Jersey.)
May 23rd—Bronxville Riding Club. (New York.)
May 25th-30th—Devon Horse Show.
May 28-30th—Fort Riley Cavalry School, Kansas.
May 29-30th—Boulder Brook Club, Scarsdale, N. Y.
May 30th—Kensington Riding Club, Kenilworth, N. J.
June 2nd-3rd—West Point Horse Show.
June 4th-6th—Allegheny Country Club Horse Show. (Penna.)
June 5th-6th—Tuxedo Horse Show, Tuxedo Park, N. Y.
June 8th-13th—South Shore Country Club, Chicago.
June 11th-12th—Upperville Colt and Horse Show. (Va.)
June 11th-13th—Westchester Co. Horse Show. (N. Y.)
June 18th-20th—Troy Horse Show. (New York.)
June 18th-20th—Huntington Bay Horse Show. (L. I.)
June 19th-20th—Toledo Horse Show. (Ohio.)
June 19th-20th—112th Field Artillery, Trenton, N. J.
June 20th—Harford County Horse Show, Wilma, Md.
June 25th-27th—Babylon Horse Show. (Long Island.)
June 26th-27th—Oconomowoc Horse Show. (Wis.)
June 26th-27th—Watertown Riding Club. (Conn.)
June 28th—Wheaton Horse Show. (Ill.)
July 3rd-4th—Madison Barracks Horse Show. (N. Y.)
July 10th-11th—Milwaukee Horse Show, Wisconsin.
July 15th-18th—Fairfield County Hunt Club. (Conn.)
July 21st-25th—Stamford Horse Show. (Conn.)
July 30th-Aug. 1st—Erie Saddle Club, Erie, Pa.
Aug. 1st—Southampton Riding and Hunt Club. (L. I.)
Aug. 6th-8th—Monmouth Co. Horse Show. (N. J.)
Aug. 12th-13th—Montauk Horse Show. (L. I.)
Aug. 13th-15th—Newport Horse Show.
Aug. 14th-15th—Bath County Horse Show, Hot Springs, Va.
Aug. 15th—Easthampton Riding Club. (Long Island.)
Aug. 15th—Litchfield Horse Show. (Conn.)
Aug. 18th-21st—Malone Horse Show. (N. Y.)
Aug. 19th-22nd—Derby Horse Show. (N. Y.)
Aug. 20th-21st—Clarke County Horse Show, Berryville, Va.
Aug. 20th-22nd—Cohasset Horse Show. (Mass.)
Aug. 21st-22nd—Southold Horse Show. (Long Island.)
Aug. 24th-29th—Erie Co. Horse Show, Hamburg, N. Y.
Aug. 29th—Fishers Island Horse Show. (N. Y.)
Aug. 29th—Oxridge Hunt Club, Darien, Conn.
Aug. 31st-Sept. 5th—Canadian National, Toronto.
Aug. 31st-Sept. 5th—Ohio State Fair, Columbus, Ohio.
Sept. 4th-5th—Mill Creek Riding Club, Youngstown, O.
Sept. 7th-12th—Rochester Horse Show. (New York.)
Sept. 11th-12th—Chatham Horse Show. (New York.)
Sept. 11th-12th—Fort Sheridan Horse Show. (Ill.)
Sept. 11th-12th—Far Hills Horse Show. (New Jersey.)
Sept. 16th-18th—Mineola Horse Show. (Long Island.)
Sept. 16th-19th—Philadelphia Riders and Drivers, Wissahickon, Pa.
Sept. 18th-19th—Natl. Polo Society, Westbury. (L. I.)
Sept. 19th—Greenwich Horse Show. (Conn.)
Sept. 21st-26th—Springfield Horse Show. (Mass.)
Sept. 23rd-26th—Bryn Mawr Horse Show. (Penna.)
Oct. 1st-3rd—Piping Rock Horse Show. (Long Island.)
Oct. 2nd-3rd—Gloucester, Va., Horse Show.
Oct. 8th-9th—Danbury Fair Horse Show. (Conn.)
Oct. 9th-10th—Orange Horse Show. (New Jersey.)
Oct. 12th—17th—St. Louis Horse Show.
Oct. 15th-18th—Brockton Fair Horse Show. (Mass.)
Oct. 16th-17th—Westfield Troop Horse Show. (N. J.)
Oct. 21st-24th—Cleveland Horse Show.
Oct. 23rd—Montclair Horse Show. (New Jersey.)
Oct. 27th-31st—Boston Horse Show.
Oct. 29th-31st—Cincinnati Riding Club Horse Show.
Nov. 5th-11th—National Horse Show, New York City.
Nov. 16th-21st—American Royal Horse Show, Kansas City, Mo.
Nov. 28th-Dec. 5th—International, Chicago.

Recognized Members A. A. H. S. —Dates Not Yet Assigned

Averill Park Horse Show, New York.
Charles Town Horse Show, W. Va.
Hamilton County Horse Show, Cincinnati.
Orange County Horse Show, Tustin, Cal.
San Joaquin County Fair, Stockton, Cal.
Warrenton Horse Show, Va.
Woodhill Country Club, Minneapolis.
110th Cavalry Horse Show.
Abington Hills Hunt Club, Clark's Summit, Pa.
Chicago Riding Club.
Los Angeles County Fair.
New England Fair, Worcester, Mass.
Montpelier Horse Show.
Pacific International, Portland, Oregon.
Seattle International Horse Show.
Sleepy Hollow Country Club, Scarborough, N. Y.
Fort Bliss Horse Show. (Texas.)
Royal Winter Fair Horse Show, Toronto.
Toronto Horse Show.
Dutchess County Horse Show, Rhinebeck, N. Y.
Cortland County Horse Show, Cortland, N. Y.
Fort Snelling Horse Show. (Minn.)
Gulf Hills Horse Show, Ocean Springs, Miss.
Lake Placid Horse Show. (N. Y.)
North Shore Horse Show, Smithtown, L. I.
Los Angeles National Horse Show.
Pinehurst Jockey Club.
Fort Sill Field Artillery School.
Columbus Riding Club. (Ohio.)
Benefit Horse Show. (Louisville.)
Lake Forest Horse Show. (Ill.)

CURRENT TOPICS

The Basic Cavalry Manual

THE Basic Cavalry Manual has, according to all comments received, met a long standing want in the service. So great has been the demand that the first edition has been sold out. The publishers have been instructed to go to print with the second edition at the earliest possible moment. We however anticipate that it will be at least a month before it can be off the press, as certain additional material is being incorporated in the second edition.

Pending the time that the new edition comes off the press, we shall be glad to receive and hold orders to be filled immediately when the books are available.

No Change in Uniform Contemplated

IT was stated informally at the War Department that those who have approached General MacArthur, the new Chief of Staff, with various recommendations looking to changes in the uniform, have been told that there will be no changes during his tour as Chief of Staff; that he feels that the younger officers especially, who are struggling along with inadequate pay, should be relieved of any anxiety which comes from the thought that they may be called upon to fit themselves out with blue uniforms or further changes in the olive drab uniform.

The 6th Cavalry Visits Nashville

AFTER a seven days hike from Ft. Oglethorps, mostly over hard surfaced roads and over two mountain ranges, the 6th Cavalry arrived in Nashville, Tennessee, early in November for an eight day stay. The command included approximately five hundred men and horses.

The regiment quickly made camp on a high hill in the State Fair Grounds, where electric lights were provided, watering facilities convenient and the buildings of the Fair Association available in case of inclement weather. Within a very short time the officers and men were ready to participate in the entertainment offered by the citizens of the town through the good offices of Colonel Henry Dickinson, commanding the 109th Cavalry, and in the Fall Horse Show and Gymkana of the 109th Cavalry Association.

Mr. E. L. Spain, President of the Y. M. C. A., gave the visiting cavalrymen free admission to the Y. M. C. A. baths and swimming pool. The Commercial Club and Hermitage Club extended privileges to the officers which they availed themselves of at every opportunity. The citizens of Nashville soon became accustomed to the sight of the cavalrymen along the streets of Nashville and they were accepted as a part of the population of the city.

The first night of the Horse Show started off with a fine exhibition with the 6th Cavalry Machine Gun Troop firing blanks while being charged on by one platoon of Cavalry, which was very exciting and which the audience thoroughly enjoyed. Jumping classes were run off to the enthusiastic applause of the audience. The 6th Cavalry took a large portion of the prizes yet Nashville and members of the local troop of the 109th Cavalry were represented among the prize winners. There were a great many classes which were exclusive to enlisted men and others exclusive to ladies. However, ladies entered all classes where officers and civilians were entrants and took their full share of prizes. The hunt teams were a particularly interesting event, inasmuch as there were eleven teams entered and the first prize in this class was taken by Mr. Dudley Gale, Mrs. Albert Sullivan and MacGavock Dickinson, the ten year old son of Colonel Henry Dickinson, Commanding Officer of the 109th Cavalry.

The second afternoon and second evening of the Horse Show were filled with good entertainment for the large audiences which filled the boxes and seats.

On Saturday evening, Troop F put on a musical ride and cavalry charge that would have been called excellent by any troop anywhere.

The Cavalrymen spent Sunday and Monday after the Horse Shows resting and Tuesday morning, although it was raining, Colonel Humphrey and his men joined in the Armistice Day Parade, of which Colonel Dickinson was the Grand Marshall.

This regiment has endeared itself to the hearts of the people of Nashville and along its line of march and it is sincerely hoped by the people of Nashville that they will make this visit an annual event.

Laced Boots to be Issued

After a thorough test in various mounted organizations, the War Department announces that laced boots are to be issued to enlisted personnel of the Regular Army mounted units as a part of their clothing allowance, effective July 1, 1931. The desirability of this article of clothing has long been admitted, but funds have heretofore been lacking for the change. Troops of the mounted arms in the United States will be given priority of issue.

The boots will be made on standard U. S. Army lasts, the color of the upper leather being as prescribed by the purchasing officer, but within the range of color between mahogany and russett. Rubber heels will be provided and cotton laces.

Professional Notes and Discussion

The 1000" Record Machine Gun Target

(By Captain "A. M. G.")

THE discussion herein is admittedly "hair-splitting," but even so, machine gun troop Commanders are invited to bear with me, and peruse it carefully.

The premises under discussion are directly based on Training Regulations and other official documents, and to begin with, I desire to state that no issue is taken with the contents of these documents.

Paragraph 114, of TR 150-35 prescribes that an officer check each machine gun target "E" prior to record firing on this target, to see that it conforms to specifications. And a dimensioned drawing, Plate 13, on page 57 of this TR, is offered as a guide. At first glance, this seems simple, and not at all mysterious.

But the old school of experience has made me think that it would be advisable to amplify this plate, and I offer the additional dimensions of the drawing below for most careful consideration.

As we all know, this target is now the only record firing the machine gunner does, hence the advisability of knowing the method of constructing it. Briefly it amounts to nothing more or less than a graphical representation of the BMG fire control tables. Instead of mils in the fire control tables, we are able to handle inches on the 1000″ screen.

To begin with, if we wish the center of impact to be at the actual point of aim, since the line of sight of this machine gun is some few inches above the axis of the bore, we have to elevate the bore until the line of sight, and the axis of the bore meet at the 1000″ screen. For the normal gun, this elevation corresponds to a sight setting of 450 yards, or 4 mils. Working backwards, if we actually measure the vertical distance between the front sight and the center of the muzzle, it should be approximately 4 inches. Try it and see what the answer is.

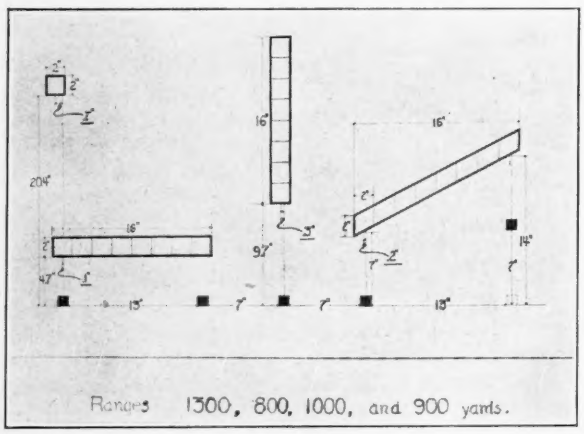
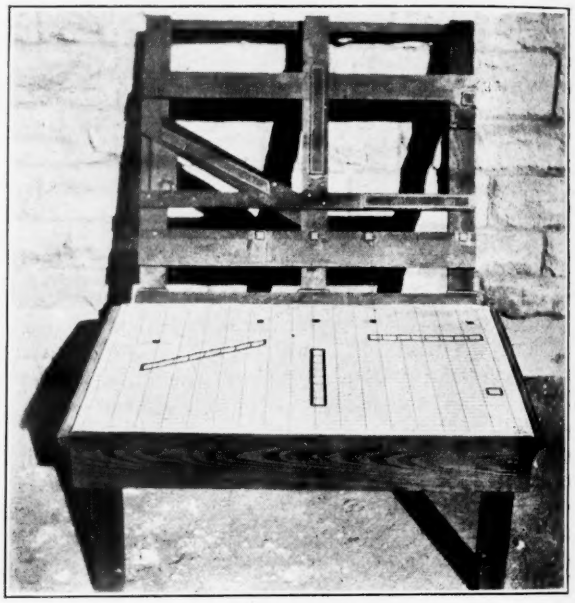


Plate 13, TR 150-35, with Suggested Modifications

Now if we wish to find out where the center of impact on the 1000″ screen should be for a sight setting of 1300 yards, with respect to an aiming point, we merely have to subtract from the angle of elevation



Press for Printing 1000″ Targets

for this range, the angle of elevation that places the center of impact at the point of aim, and lay this numerical value off in inches on the 1000″ inch screen, above the point of aim. Specifically:

(From Table I, Col. 2, Fire Control Tables, B. M. G.)
Angle of elevation, Range 1300 25.3 mils.
Angle of elevation, Range 450 4.0 mils.

Subtracting, our C. I. should be 21.3 inches above the point of aim.

If a two inch square be described around this point, its lower edge will be 20.3 inches above the aiming point. Examing Plate 13, we find that the vertical dimension for the application target is 20.4 inches, the bottom of the scoring space being this distance above the bottom of the aiming spotter. Why the difference of one tenth inch? Not a mystery at all. The rate of change of angles of elevation is not uniform. We assumed such when we interpolated for the angle of elevation of 450 yards. Proof firing evidently shows that 3.9 mils is the accurate angle of elevation that places the point of aim at the center of impact instead of the approximate value of 4.0 mils we obtained by interpolation.

(Continued on page 60)

Organization Activities

1st Cavalry, Fort D. A. Russell, Texas

THE most important bit of news at this post is contained in the radiogram, received here January 9, 1931, ordering Colonel John S. Fair to duty as Chief of Staff of the Hawaiian Department, to sail from San Francisco on February 5. Colonel Fair was ordered to command the First Cavalry July 1, 1929. During his tenure of command, he has accomplished a great deal in improvement of the garrison. Better known, perhaps, are his efforts toward establishing friendly relations with the Mexican Army.

The new grass polo field is assuming recognizable proportions. This field is to furnish a site for athletics and polo, and some of the young men of Marfa are trying to organize a polo team to play on this field with teams from this regiment.

Major J. D. Derrick has left to go to the Philippines for his new station.

Two of the new quarters for officers will soon be ready for occupancy. With the completion of the five sets authorized, we hope we will be relieved of the embarrassment this station has suffered from in the matter of accommodations. Visitors to the post have learned from experience that we have been hard-pressed for room, and consequently have been unable to entertain them in the manner we desire.

2d Cavalry, Fort Riley, Kansas

THREE hunts with hounds enlivened the Christmas Holidays for the officers and enlisted personnel of the Second Cavalry, Fort Riley, Kansas. Capt. William H. Dean, acting master of fox hounds, led more than three hundred members of the Second Dragoons and guests from the Post on all hunts, in spite of the large number of Christmas furloughs that were in effect.

The Regiment has settled down to the winter program of individual and mechanical refresher training for men, mounts and small units concurrent with training of recruits, remounts and jumpers.

Capt. Manly F. Meador, arriving from the Philippine Islands, joined the Regiment January 5, and has been assigned as Assistant to the Plans and Training and Intelligence Officer.

3d Cavalry (less 1st Squadron), Fort Myer, Virginia

SECRETARY of War and Mrs. Hurley were honored at the first exhibition ride of the winter season held on January 16th. The regiment (less 1st Sq.) formed an escort of honor to conduct the Secretary and his party to the riding hall where the demonstrations are staged.

These Friday rides and the tea dances which follow, annually attract a large attendance from official and civilian circles in Washington. Admission is free but the popularity of the exhibitions necessitates advance reservations to insure obtaining seats.

6th Cavalry, Ft. Oglethorpe. Ga.

TROOP and Squadron training and schools resumed on January 3, 1931, following the Christmas holiday period.

Special equitation classes for the training of olympic and polo prospects have been organized and work daily each afternoon in the riding pens.

Ladies and childrens riding classes meet three days a week.

The Reserve Officers of the 63d Cavalry Division ride each Sunday morning in Chickamauga Park under the direction of Captain H. V. Scanlan, Cavalry (DOL).

Combined Cavalry and Infantry tactical exercises will be held twice each week during the month of February. During the period, planes from Maxwell Field will be present to operate with the ground troops.

Orders have been received relieving Colonel E. H. Humphrey from command of the regiment on August 4, 1931, and his assignment to duty as Chief of Staff, 1st Cavalry Division, Fort Bliss, Texas.

7th Cavalry, Fort Bliss, Texas

THE regiment was delighted to welcome Colonel O. W. Bell, as a new Regimental Commander. Colonel Bell comes to us from Reserve duty in St. Louis.

The regiment is fortunate in receiving Captain Hugh G. Culton. Captain Culton was aide to the late General George C. Barnhardt. He has been assigned to command Machine Gun Troop.

The troops are busy with active training for the coming spring maneuvers. It is reported that the maneuvers are to be held in a mountainous region. This kind of country, being strange to most of us, should add many new and interesting features to the maneuver period.

Polo has started again with new faces and new horses predominating.

8th Cavalry, Fort Bliss, Texas

IN preparation for possible maneuvers in the Sacramento Mountains, New Mexico, during May, the regiment is experimenting with various types of pack equipment. The scope of this work includes a school in packing for selected officers and men, tests of existing packs, and experiments with improvised equipment. So far, the outdoor training of the regiment has not been interrupted by inclement weather.

On January 10th, the Second Squadron, with machine guns and radio pack set attached, marched to the vicinity of Ysleta, Texas, for tactical training and test of pack equipment.

Experimental tests are also being conducted with the new Browning Air Cooled Machine Gun, which, according to present plans, will replace the machine rifles in cavalry regiments. This endeavor to increase the fire power of cavalry is looked upon with great favor in the regiment.

9th Cavalry, Fort Riley, Kansas

THE regiment, in general, performed the regular routine duties pertaining to the Cavalry School.

The new club building for the enlisted personnel of the regiment is just about completed, and is a very pleasing structure both inside and outside. The club consists of auditorium with stage and dressing rooms, lobby and bar, ladies rest room, cloak room, storeroom and office. The furniture consists of numerous settees, leather rockers, rugs and a radio. The building was constructed by enlisted men of the regiment, at the expense of the regimental fund.

Captain Murray H. Ellis, joined on October 20, 1930, from Poland, where he attended the Polish Cavalry School. Captain Ellis is an instructor in the Horsemanship Department of the Academic Division.

Captain Rufus S. Ramey, joined on November 10, 1930, from France, where he attended the French Cavalry School. Captain Ramey is an instructor in the Horsemanship Department of the Academic Division.

Captain Frank Nelson who was transferred from the 1st Cavalry, Fort D. A. Russell, Texas, to the 9th Cavalry, joined on December 8, 1930. Captain Nelson is assigned to duty in connection with the training of mounts for the Olympic Equestrian team.

Second Lieutenant John G. Merrick, Cavalry, who was relieved from assignment and duty as a student at the Cavalry School and assigned to the 9th Cavalry, joined on December 2, 1930.

10th Cavalry, Ft. Huachuca, Arizona

THE period, December 24th to January 1st inclusive, was designated as the Regimental Holiday Period and was welcomed by all after a strenuous and successful year. As a result the entire Garrison found itself "on the rock pile" on January 2nd; the Old North Parade, infested with rocks and sunken but exposed boulders which have caused many accidents during charges, has been divested of its rocks until it has the appearance of a real parade ground.

The only December arrival was 1st Lieutenant D. P. Buckland, coming here from duty with the Organized Reserves in Chicago. The only departure was 1st Lieutenant M. L. Stockton, who has gone to the detail vacated by Lieutenant Buckland.

Horse show work which was suspended during cold weather will start in a few weeks. The first show will be held during the latter part of February. Every possible effort is being made by Colonel Sherburne to arrange a few Polo games with other Regimental Teams; the Tenth is many miles from Polo competition.

11th Cavalry, Presidio of Monterey, California

THE regiment has been glad to greet its new Commanding Officer, Colonel and Mrs. Ben Lear, arrived January 3, 1931 after a motor trip across the continent. On January 7th Colonel Lear saw his command for the first time when a parade and review of the entire garrison was held.

The polo team is faced with the task of rebuilding the first team. Major D. S. Wood and Lieut. T. T. Thornburgh are available to play from last year's successful lineup but Captain W. A. Falck and Lieut. John Hines have been lost by transfer. However, plenty of new material is available and the prospect is very hopeful.

The regiment has recently become the proud possessors of the nucleus of a drag hunt pack. Seven hounds have been received of the Maryland or East Shore type, presented to the regiment by Mr. John McEntee Bowman of the Golden's Bridge Hunt.

12th Cavalry, Fort Brown, Texas

THE Annual Mid-Winter Polo Tournament at Fort Brown, Texas, came to a close on December 21, 1930, with the Fort Sam Houston Team as the winner of the tournament and the Reynosa, Mexico Team as the runner-up.

The trophies were presented to the victors by Colonel Francis W. Glover, Commanding the 12th Cavalry, at a banquet, in honor of the visiting teams, on the night of December 21st. Among the honor guests were General Samuel D. Rockenbach, instrumental in sending down the Fort Sam Houston team, Honorable R. B. Creager, National Republican Committeeman, and Mr. W. S. West and Mr. G. C. Richardson, representing the Chamber of Commerce of Brownsville.

2d Squadron, 12th Cavalry, Fort Ringgold, Texas

THE 2d Squadron, 12th Cavalry, started the annual target season on January 2, 1931, and it is contemplated that by March 31st, record practice with all weapons will have been completed.

The Squadron spent half of the time during the month of December on maintenance and repair projects. A great deal of progress has been made and the Post is in excellent condition.

Major W. F. Hamilton, M. C., was relieved by Major F. E. Winter in December. Major Hamilton had been at this Post for over four years and his departure was greatly regretted by all.

13th Cavalry, Fort Riley, Kansas

THE regiment completed its annual two weeks practice march on October 10, 1930. The first four days of October were spent at Salina, Kansas. Partici-

pating in the Salina Horseshow and Fair. Each troop made an individual demonstration and a number of officers, ladies and men entered into the jumping competitions.

The regimental combat exercises were held in conjunction with the Air Corps, Field Artillery and Troop A, 1st Armored Car Squadron, at this post. On December 22 the regimental commander completed his training test of the troops of the regiment. This test was of the training accomplished since the beginning of the training year and the results were highly satisfactory.

Major William E. Shipp, Captain Anderson H. Norton, 2nd Lieutenants Woodbury M. Burgess and Paul A. Disney have been assigned to the regiment but have not joined. Captain Charles E. Dissinger joined the regiment from the Philippines and was assigned to command Machine Gun Troop. First Lieutenant William L. Barriger was relieved from assignment on December 1st and ordered to the New York General Depot. Captain Nicholas W. Lisle replaced Lieutenant Barriger as Regimental Supply Officer.

14th Cavalry (less 1st Squadron), Fort Des Moines, Iowa

DURING the months of November and December the troops carried out the usual program of winter instruction.

The riding hall is kept in constant use from early morning until late each afternoon.

Colonel Edgar A. Sirmyer, commanding the 14th Cavalry, has inaugurated a training system among the troops of this Post which combines theoretical training with practical training.

Using the Corps Area Objective, certain subjects are allotted the organizations each month, and at the end of the month the Regimental Commander questions each man, in every organization, on the allotted subjects. The men are then required to put into practice that which they have explained. This method teaches a man how to explain different subjects as well as how to do them.

Captain F. M. Harshberger, 14th Cavalry, gave an interesting talk on January 5, 1931 to the officers, choosing as a subject "Implements used in an Organization."

1st Squadron, 14th Cavalry, Fort Sheridan, Ill.

THE Squadron is at present participating in a program of winter training and is trying out a scheme of rotation in special duty, post and troop, which is planned to bring each member of the Squadron to the high standard of excellence required of a Cavalry Soldier.

Major Charles C. C. Smith has just returned to duty after a very interesting and successful tour in Argentine, as a member of the Army Polo Team. He is now in charge of Polo and is Polo Representative for the Post. He is also conducting the Special Squadron Course for the development of horsemasters among the enlisted personnel.

103d Cavalry, P. N. G.

IN December the first small bore rifle match was held by the regiment for the season. Troop F won the match, Troop C second and Troop B came in third. This is the fore runner of intensive rifle work that is getting under way. Several matches are scheduled for the first quarter of the new year, for individuals, troops and squadrons.

Our Indoor Polo Team is fast rounding into form and is on the road to a successful season. The new heating plant that has been installed at the armory at Philadelphia is helping the public to appreciate indoor polo more than in previous years.

Captain Charles Wharton, D.O.L. assigned to the First Squadron as instructor has been transferred to active duty at Fort Ethan Allen; the officers and men on the squadron deeply regret to see Captain Wharton leave Philadelphia.

Federal Inspection for the Philadelphia Units comes in March and the troops are hard at it to polish off the rough edges in preparation for the event that means so much to them this year.

104th Cavalry, P. N. G.

THE Troops of the First Squadron, plus Troop L and Machine Gun Troop, are engaged in an exciting Small Bore Rifle competition. To date Troop A of Clearfield is in the lead. Sergeant Leo P. Franks of Troop C, Altoona, is high individual scorer.

155 officers and men of the First Squadron are enrolled in correspondence courses.

The Inaugural Ball in honor of Governor Gifford Pinchot was held in Zembo Temple, Harrisburg, Pa., under the auspices of the officers of the Regiment Tuesday evening, January 20th. Vincent Lopez and his orchestra alternated with the Regimental Band in furnishing dance music. The committee in charge was composed of officers of the Regiment located in Harrisburg.

The Governor's Troop, Troop I, Harrisburg, escorted the Governor from the Mansion to the reviewing stand, in accordance with an old custom, prior to the Inaugural Parade.

306th Cavalry, Baltimore, Md.

THE Reserve Officers riding class at Fort Hoyle, Md., was discontinued after the middle of December. Fortunately the weather remained fine up until that time and outdoor work could be carried on with comfort, but the weather then became too severe and no more rides will be attempted until spring.

The monthly conferences are being conducted by Reserve Officers and those officers acting as instructors are learning that it requires a great deal of work to instruct efficiently in even the simplest subjects. However, they are enthusiastically giving their time to the work.

THE 1000" RECORD MACHINE GUN TARGET

(Continued from page 56)

In a similar manner, the other vertical dimensions on Plate 13 are determined.

However in this discussion so far, we have omitted entirely one condition and this omission is really the crux of the 'hair-splitting.'

Referring to paragraph 6, of TR 320-35, may I quote, "The rear sight is adjustable for windage, *and drift is offset automatically by the construction of the rear sight leaf.*" Surely no mystery to us, but how does this affect the 1000" target? Falling back to the Fire Control Tables, we find listed under col. 7, of table I, the "drift right." At 1000", *there is no drift*, But when we set our sight at 1300 yards elevation, we automatically set off a *drift correction* of .8 mil. What result on the target? We are bound to place the center of impact of our burst a corresponding amount off in the direction of this drift correction. Will it be the full amount off, that is .8 inch? No, because when we determine the point of aim to be coincident with the center of impact for our normal gun, we use a sight setting of 450 yards. And when our sight is set at this range, we automatically set off a *drift correction* of .1 mil. Therefore our center of impact will be but .7 inch off the vertical line through the point of aim, when firing with a sight setting of 1300 yards.

And following the same course of reasoning the other offsets on the 1000" target are:—for 800 yards elevation, 1 inch; for 1000 yards elevation .3 inch; and for 900 yards elevation .2 inch.

Are these measurements of any real importance? Examine your last record targets, and, I think you will find your shot groups to the left of the scoring space if your targets were made up with the scoring space directly over the aiming points—unless your corporals have learned to favor the right edge of the aiming spotter.

As to checking these targets before record firing. Our same TR recommends the printing of them, when means are available to do it. If printed targets are issued before 1950, I, for one will be surprised.

So we have built a "gadget" to accomplish this out of salvaged lumber which functions very nicely. The patterns for the scoring spaces and spotters are of composition rubber sole, commercially known as "Goodyear Wingfoot," and ordinary black printer's ink used thereon, gives excellent results. Two men can turn out targets at the rate of two per minute. They are better and more accurate than the stenciled targets. Regardless of inaccuracies in the grid lines of the issued papers, once the plate is checked, the target is exactly right.

Sergeant McAleese, of the Department of Cavalry Weapons, The Cavalry School, has this press in charge. He finds that targets cost $2.00 per hundred to cover cost of ink. Dimensions for the "gadget" can be obtained on request from him. Needless to say the targets turned out are "hair-splitting targets."

BOOK REVIEWS

THE REMINISCENCES OF A MARINE, by Major General John A. Lejeune, U. S. Marine Corps. Illustrated with Official and Personal Photographs. 488 pp. Dorrance & Co., Philadelphia. $4.00.

Written in clear, simple English, this is an interesting account of a particularly colorful and comprehensive career in the Naval Service of the United States.

The brief account of the writer's early youth in Louisiana in the period immediately following the Civil War is an arresting story of the tragic era of the Southland that is rapidly fading from our national consciousness. The many episodes in the active life of a Marine, serving under the American flag in Samoa, Cuba, Porto-Rico, Panama, the Philippine Islands, Mexico, France, Germany, Haiti, Santo Domingo, and Nicaragua, are told in an unassuming manner, but never fail to hold the interest of the reader. Particularly dramatic is the account of the wreck of the U. S. S. Vandalia at Apia, in which the author almost lost his life.

The frequent personal allusions to his numerous relatives, which are scattered throughout the book, while revealing his strong, clannish trend and a deep sense of kinship, detract somewhat from its literary merit.

Although the book was written for the general public, real gems for the military student will be found in the chapters dealing with the Battle of Saint Mihiel, the Battle of Blanc Mont Ridge, the 2nd Division in the Meuse Argonne, the March to Germany, and the occupation of the Rhineland. Not only are they historically accurate but they cover these actions from the viewpoint of a division commander who presents some of the actual problems confronting a commander in battle, and indicate his successful solution of these problems.

Any military student of American participation in the World War will suffer a real loss if he fails to read the four chapters covering the period in General Lejeune's career during which he commanded the 2nd Division in action.

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NORTHCLIFFE, An Intimate Biography, by Hamilton Fyfe. 357 pages, illustrated. Published by the Macmillan Company. Price $4.00.

Alfred Harmsworth, publisher, later Lord Northcliffe of the British peerage, lives again in the skillfully written pages of this excellent biography. It tells the story of Northcliffe's rise to power through hard work and the application of revolutionary methods in popularizing his newspapers. The use that he made of this power before, during, and after the war is related in a way that sheds fresh light on matters of absorbing interest. The chapters devoted to his activities as head of the British mission in United States, his rejection of cabinet office, and his handling of propaganda to

undermine morale in the Austrian and German armies, give intimate details of Northcliffe's life at the turning point of his career. From them we can get a better appreciation of how well Northcliffe served his country and the Allied cause. His failure to grasp opportunities for greater usefulness, and the episodes that foreshadowed his tragic end, are given with keen insight and sympathy which arouse great admiration for the author.

The book should appeal strongly to American readers, not only because Northcliffe was widely known and admired in the United States, but also because the story of his life is a fascinating record of a self-made man who achieved great success in his particular field. Twenty years of association with Northcliffe, sympathetic understanding of his personality, and masterly skill as a writer, have enabled Hamilton Fyfe to produce a book which we unhesitatingly recommend to our readers.

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KAISER AND CHANCELLOR, by Karl Friedrich Nowak; Translation by E. W. Dickes. 290 pages. The MacMillan Company, New York. $3.50.

The author presents in this volume a biographical sketch of the German ex-Emperor based upon official documents, confidential memoranda, and other material placed at his disposal by the Kaiser himself. The major portion of the book is devoted to the relations between Emperor William II and his chancellor, Prince Bismarck, and culminates in the latter's dismissal as pilot of the ship of state.

The author states that the ex-Emperor examined the manuscript before publication, but refrained from any sort of objection to its contents. Although the spotlight focussed upon the Kaiser frequently shows him up to disadvantage, the book, on the whole, seeks to vindicate his reign. The appendix contains a number of interesting documents and excerpts of press references to Emperor William during the first two years of his reign. The numerous illustrations are reproductions of photographs and portraits from the Kaiser's private collection, with descriptive titles in his own handwriting.

The book is well written and should appeal to those who are interested in the personalities discussed. It throws an interesting sidelight upon the history of the period which it covers.

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THE ORIGINS OF THE WORLD WAR, by Sidney Bradshaw Fay, Second Revised Edition; two volumes in one, 577 pages. The MacMillan Company, New York. $4.00.

The second edition of Professor Fay's scholarly study is a revision of the original text done in the light of the wealth of documentary material on the origins of the World War made available to the public since the publication of the first edition. The author states that he did not find it necessary to modify the chief thread of his narrative or his general conclusions. The evidence now available, the author holds, compels abandonment of the Treaty of Versailles

"Odsbodkins and Gadzooks!

Where in Christendom is Fancy Bot School?" Snorteth the old soldier as he struggleth over a map problem

Precious seconds that pass while he frets and fumes would be saved by consulting

Index to the

Gettysburg, Fort Leavenworth and Fort Benning Military and Geological Survey Maps

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dictum that Germany and her allies bear the sole responsibility for bringing about the war. In Professor Fay's opinion, Austria was more responsible for the immediate origin of the war than any other power. Germany, he believes, was a victim of her alliance with Austria. Nevertheless, Germany, the author holds, did honestly endeavor to avert the conflict. Russia was responsible because of the encouragement she gave to Serbian agitation. In the case of France, the author gives a Scotch verdict—not proven. The guilt of England is one of nonfeasance rather than malfeasance. By taking a definite stand early in the crisis for either neutrality or alignment with the Entente in case of war, the British government, in Dr. Fay's opinion, might have prevented the war. Belgium and Italy are completely exonerated.

The book is a detached, impartial, judicial investigation of a highly controversial subject and is an invaluable scientific contribution to the literature of World War history. Although one may not agree with Professor Fay in all of his conclusions, the book should be read by everyone interested in the question of war guilt and the immediate origins of the World War.

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THE GENESIS OF THE WORLD WAR, by Harry Elmer Barnes, PhD., Third Completely Revised Edition; 754 pages. Alfred A. Knopf, New York.

The author presents an introduction to the study of the problem of war guilt on the basis of documentary evidence published by the various governments since 1917. Believing that the truth about the causes of the World War is one of the livest and most vital issues of the day, the author approaches his theme in a frankly controversial spirit and challenges current misconceptions which owe their origin to wartime propaganda and falsehoods.

Dr. Barnes sees the chief roots of the war in Alsace-Lorraine, the French revenge aspirations, the Near East, and Morocco. He charges that a plot was hatched by Poincaré and Iswolski, the Russian ambassador in Paris, and traces its development from 1912 to the assassination of the Archduke Franz Ferdinand. He produces a mass of documentary evidence in support of his charge that this atrocity was planned by the chief of the intelligence division of the Serbian general staff, working in collusion with the Russian military attaché at Belgrade, to furnish the necessary spark to kindle the fire in the Balkans, which, it was hoped would lead to the goal of the Franco-Russian conspiracy.

The chapter that deals with America's entry into the war contains some startling revelations. The author points out that President Wilson, by permitting England but not Germany to violate international law promiscuously, not only invited the very reprisals which inevitably followed, but actually failed to observe himself that neutrality which he had enjoined upon his country. By a mass of cumulative evidence, the author shows that President Wilson was actually intent upon entering the war on the Entente side as

soon as public sentiment in the United States would support such action.

The author severely criticizes the conduct of Ambassadors Page and Gerard and charges them with having contributed materially toward the entry of the United States into the conflict. Professor Barnes' scholarly book must be read by every serious student of the causes of the World War.

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EUROPE SINCE 1914, by F. Lee Benns. 671 pages. F. S. Croft & Co., New York.

Aiming to provide the general reader and the student of history with an introduction to the events and changes which have taken place in Europe since 1914, the author devotes the initial chapter of his comprehensive work to the origins of the World War. Three succeeding chapters contain a sketchy outline of the progress of the war; and two more, which complete Part I, cover the period of the Armistice, the disintegration of the Austro-Hungarian Monarchy, and the German Revolution. Part II details the work of the Peace Conference and the liquidation of the problems presented by the war, while Part III devotes ten chapters to the national reconstruction of the New Europe.

The author's contention that entangling alliances were probably the most important underlying cause of the World War disregards the fact that these alliances were but the outward expression of still more profound and deeper-lying economic and political causes. His charge that "militarism" and the "terrible time-tables of European general staffs had far more to do with the actual outbreak of the World War than the deliberate decision of any one government," merely reiterates the fallacious argument of pacifists.

The author has undertaken a sizeable task and, on the whole, has acquitted himself creditably. He presents a vast array of facts, and strives to be fair and impartial. He is generally accurate and always interesting. The book is recommended to those interested in recent developments in Europe.

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SAINT JOHNSON, by W. R. Burnett. Lincoln MacVeagh, The Dial Press, New York. 305 pages. $2.00.

Cattlemen, cowboys, miners, gambles, plenty of liquor and gun play, are the materials from which the author has made a story based on frontier conditions in the Arizona of fifty years ago. The central figure, Wayt Johnson, self-made law and order officer, imposes his notions of place on the unruly cow-town of Alkali. His methods are both forceful and effective, and when at last the murder of his younger brother goads him into violent action, he handles his guns with no mean skill. Swift action and sudden death. Good for an evening's reading.

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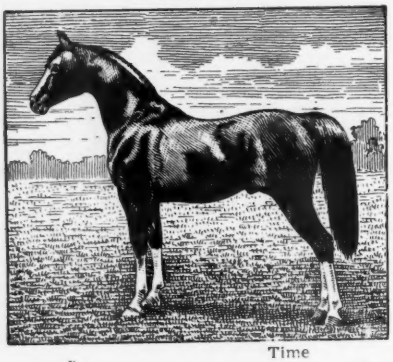

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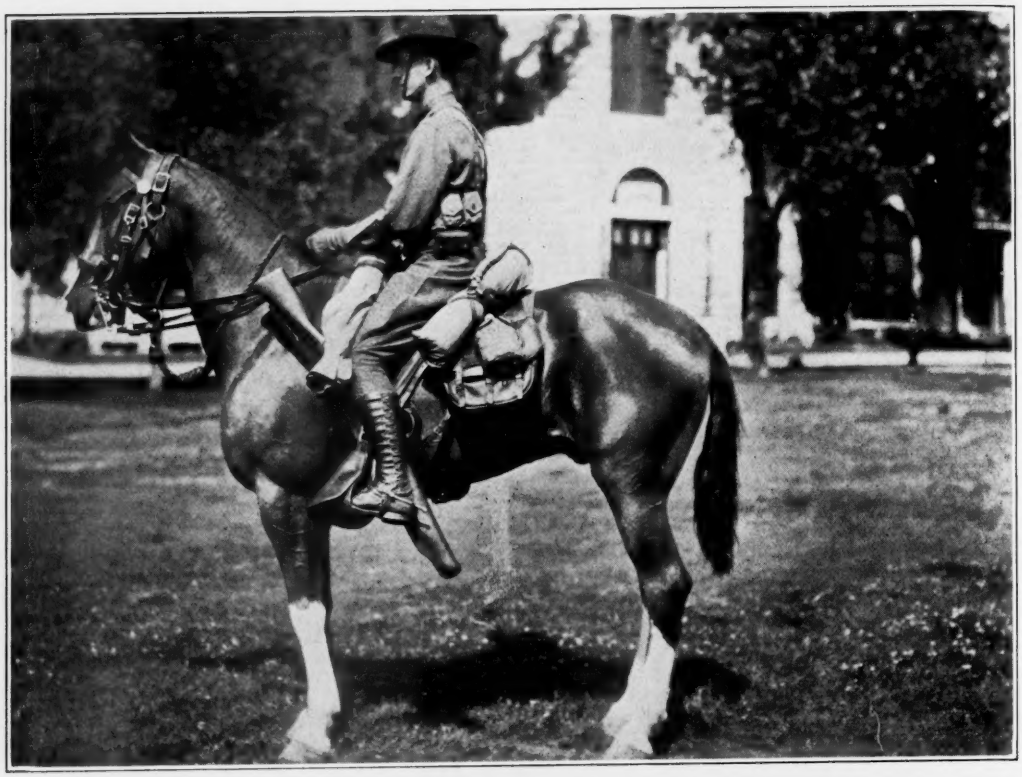

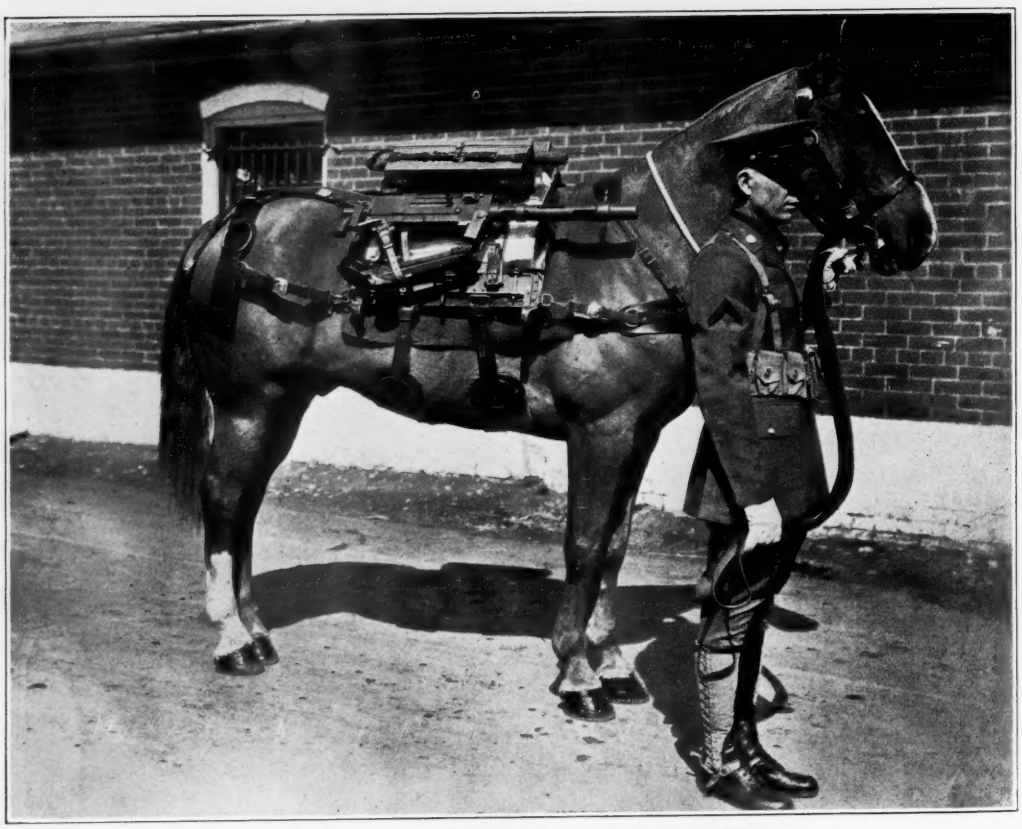

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